

# MOTOR AGE

A Chilton Class Journal Publication  
Published Weekly August 9, 1928

LAST MONTH IN ONE LARGE CITY  
STUTZ OUTSOLD ALL OTHER HIGH  
PRICED CARS. AND EVERY STUTZ SOLD  
WAS A REAL PROFIT-MAKER. WHAT  
CAN BE DONE IN ONE CITY CAN BE  
DONE IN ANOTHER—BY THE RIGHT  
MAN. AND THAT MAN WE WANT.

THE  
SPLENDID  
STUTZ



STUTZ MOTOR CAR COMPANY OF AMERICA, INC., INDIANAPOLIS, IND.

# TROPIC-AIRE

HOT WATER

## Automobile Heater

### "For Those Who Don't Go South"

Quick—Clean—Uniform—Steady! As reliable as your home heating plant!

*Takes hot water from the motor*—the first to heat, the fast to cool. Gives uniform heat regardless of speed—even while idling. Circulated by fan throughout the car.

*No odors, no fumes*—entirely separate from exhaust system—just clean warm air. Fan uses no more current than a tail-light.

*Thoroughly tested and proved.* Used in thousands of cars, buses and taxi-cabs. Hupp Motor Car Corp. are drilling the water jacket and spotting the dash of their new cars for Tropic-Aire. See illustration in circle.

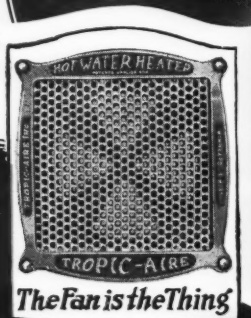
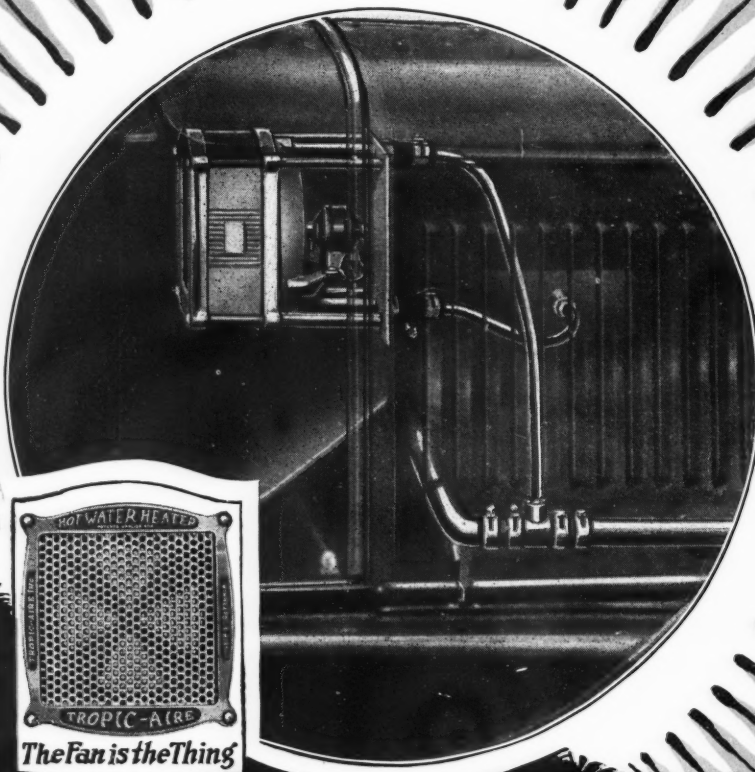
*Nation-wide selling program* will create big profitable demand. Don't wait! Write today for complete information and name of nearest distributor.

#### TROPIC-AIRE, INC.

1036 RAMSEY STREET, Minneapolis, Minn., U. S. A.

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1581761  
1668490  
1668491

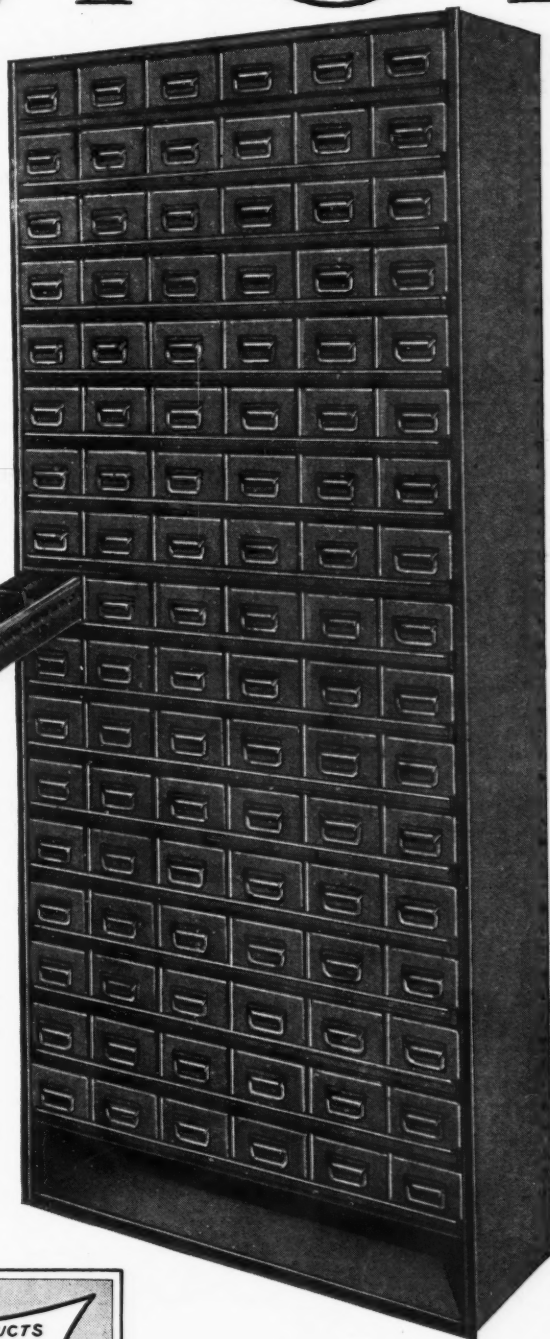




# LYON

You can store a lot of small parts—and a few big ones—in the 102 drawers and the one shelf of this Lyon Universal Unit. There are fifteen others, one that will take parts over six feet long. Each one will solve some particular storage problem perfectly because it was designed exactly for that purpose. Lyon Universal Units

STEEL LOCKER



SHOP  
BENCH

and other Lyon Steel Storage Equipment enable service departments to make more money by cutting down waste, loss of time and damage to tools.

Your automotive jobber can give you quick delivery on Lyon Steel Storage Equipment. Talk to a salesman about it. Write to us also for Universal Bulletin 515-B.

*Steel Shelving . . . Lockers . . . Cabinets . . . Counters . . . Steelart Folding Tables and Chairs. General Steel Storage Equipment and Steel Furniture. The Lyon name and trademark attest the strength, finish, usefulness and durability of Lyon Steel Products*

UNIVERSAL  
UNIT

LYON METAL PRODUCTS, INCORPORATED, AURORA, ILLINOIS

Successor to:

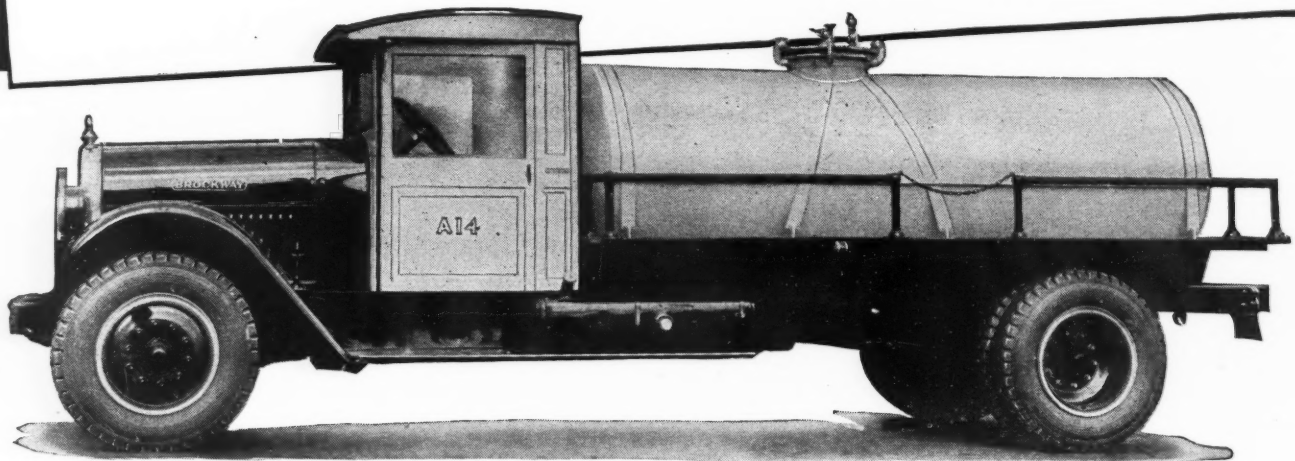
DURAND STEEL LOCKER CO.  
Chicago Heights, Ill.

LYON METALLIC MFG. CO.  
Aurora, Ill.

# STEEL STORAGE EQUIPMENT

WE HAVE DEFINITELY DECIDED TO  
STANDARDIZE ON BUDD DUALS FOR OUR  
3-TON MODEL . . . AND ON ALL OTHER  
MODELS USING DUAL WHEELS, AS SOON  
AS OUR PRESENT COMMITMENTS ON  
MATERIAL RUN OUT.

*W. B. Eddy.*  
Brockway Motor Truck Corp.



IF there is anything that will  
win a truck manufacturer,  
a truck dealer, or a truck  
owner to Budd Duals, it's his  
experience with

*other duals*

## BUDD DUALS

Can't  
wobble—



Can't  
shimmy—



And  
they stop  
side-sway!



BUDD WHEEL COMPANY, DETROIT

# MOTOR AGE

Vol. LIV

Reg. U. S. Pat. Off.  
Established 1899

No. 6

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## CONTENTS

News of the Industry and Trade .....	9
The Automotive Calendar .....	10
Jest—A Bit Cynical. By Sherman Swift .....	13
Dibble Gabble. By L. C. Dibble .....	18
John Cleary Says— .....	18
Speed Knights of Water, Land and Air .....	19
A Shop Without a Foreman. By H. Bethea .....	20
Peerless Replaces 80 With Series 81. By A. F. Denham .....	22
When Honorable Japanese Dealers Get Together .....	25
Marmon Increases Power of New Cars. By M. Warren Baker .....	26
A MOTOR AGE Impression of W. K. Norris .....	29
Is the Efficiency Screw Loose in Your Business? By E. F. McKinstry .....	30
Oldsmobile Adds De Luxe Body Models .....	33
Build in Haste and Repent at Leisure. By Tom Wilder .....	35
Useful Shop Equipment of Interest to the Trade .....	36
The Latest in Accessories .....	37
Readers' Clearing House. Answers by C. Edward Packer .....	38
Purrs and Pings .....	42
Prices, Weights and Equipment of Current Passenger Car Models .....	43
Mechanical Specifications of Current Passenger Car Models .....	46
Advertisers' Index .....	47

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under Act of March 2, 1879.

## EVK-KLEAN SEAT PADS



Made of highest quality imported straw. No offensive odor and are not artificially colored. Won't discolor delicate fabrics. Can be cleaned with sponge.

### Selling Fast—Order Today

No cars factory equipped with seat pads—23,000,000 on the road affords dealers a wonderful sales outlet and seat pads are becoming more popular every day for summer driving. No large stock to carry. Three widths in the "OVERALL"—38, 42 & 46", selling at \$3.50 list, fit all cars. Other types at \$1, \$1.50 and \$2 list, enable you to sell every car owner. Order today from your jobber, or mail coupon below.

### MAIL TODAY

Evr-Klean Seat Pad Co.,  
115 S. Dearborn St., Chicago, Ill.

Gentlemen: Please send me complete information, catalog and prices.

NAME .....  
ADDRESS .....  
CITY ..... STATE .....  
M A



The short visor on the modern car makes every new car buyer a prospect for Visorite. Fits any visor, can be attached in a few seconds with patent clamps. No holes to drill. Attractive—well made—casts a soft green light which dispels all glare.

Lists at \$2.95

Ask your jobber's salesman. If he cannot supply you, write direct giving his name.

SAYLOR MFG. CO., DENVER, COLO.  
2205 Champa Street

Clean  
with

### Cleans without scrubbing!

That is one of the big advantages of Oakite. It does away with costly hand cleaning of repair work. Oakite materials soak parts and assemblies clean... remove dirt, grease and muck quickly and thoroughly. Write for booklet.

Manufactured only by

OAKITE PRODUCTS, INC.

18E Thames Street New York, N. Y.

# OAKITE

Industrial Cleaning Materials and Methods



# These are the oil companies which mix and sell **ETHYL GASOLINE**

—the motor fuel that knocks out that "knock"  
and gives high compression performance



American Oil Company <i>American Ethyl</i>	Pennsylvania Refining Co. <i>Penreco Ethyl</i>
Anglo-American Oil Co., Ltd. <i>Pratt's Ethyl Petrol</i>	Pennzoil Company <i>Pennzoil Ethyl</i>
Ashland Refining Company <i>Red Pepper Better Ethyl</i>	Refiners Oil Company <i>Refiners Ethyl</i>
Associated Oil Company <i>Associated Ethyl</i>	Root Refineries, Inc. <i>Red Chief Ethyl</i>
Atlantic Refining Company <i>Atlantic Ethyl</i>	Solar Refining Company <i>Solar Ethyl</i>
Beacon Oil Company <i>Colonial Ethyl</i>	Spears & Riddle Company <i>Fleet Wing Ethyl</i>
Continental Oil Company <i>Conoco Ethyl</i>	Standard Oil Co. (Indiana) <i>Red Crown Ethyl</i>
Crystal Oil Refining Corp. <i>Crystal Ethyl</i>	Standard Oil Co. (Kentucky) <i>Crown Ethyl</i>
Empire Oil Works <i>Empire Ethyl</i>	Standard Oil Co. of Louisiana <i>Standard Ethyl</i>
Humble Oil & Refining Co. <i>Humble Ethyl</i>	Standard Oil Co. (Nebraska) <i>Red Crown Ethyl</i>
Imperial Oil, Limited <i>Imperial Ethyl</i>	Standard Oil Co. (New Jersey) <i>Standard Ethyl</i>
Johnson Oil Refining Co. <i>Johnson Ethyl</i>	Standard Oil Co. (Ohio) <i>Red Crown Ethyl</i>
Kendall Refining Company <i>Kendall Ethyl</i>	Sterling Oil Company <i>Sterling Ethyl</i>
Liberty Oil Company, Ltd. <i>Liberty Pep Ethyl</i>	Texas Pacific Coal & Oil Co. <i>T.-P. Ethyl</i>
Louisiana Oil Refining Corp. <i>Loreco Ethyl</i>	Tide Water Oil Company <i>Tydol Ethyl</i>
Mexican Petroleum Corp. <i>Pan-Am Ethyl</i>	Union Oil Co. of California <i>Union Ethyl</i>
A. D. Miller Sons' Company <i>Miller's Ethyl</i>	Walburn Petroleum Co., Inc. <i>Walburn Ethyl</i>
Pan American Petroleum Co. <i>Pan-Am Ethyl</i>	Waverly Oil Works Company <i>Waverly Ethyl</i>

*In addition there are hundreds of resellers*

## ETHYL is in good company

WHY are these companies mixing ETHYL with their already good gasolines? To enable you as a car owner to get maximum efficiency from whatever car you may be driving.

**ETHYL GASOLINE CORPORATION**

25 Broadway, New York City

56 Church Street, Toronto, Ont., Can.

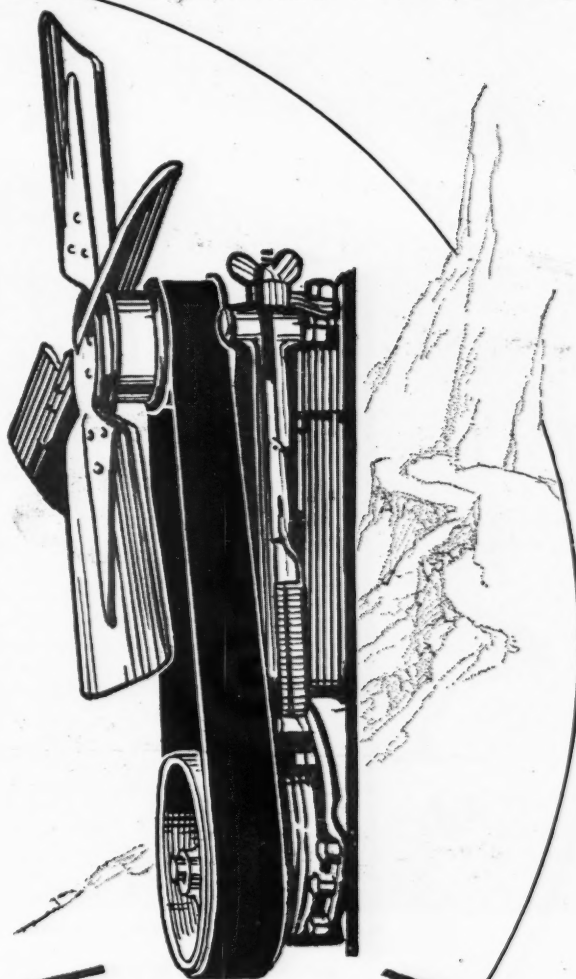
# Notice This

## *During these warm days*

**I**F YOU watch the cars driving up to your place you'll notice that on hot days more cars than usual are bothered with overheating of their engines.

Lift the hood and look at the fan belt and, 4 times out of 5, you'll find that it's old and worn, soaked with grease and caked with dirt. Naturally it's slipping.

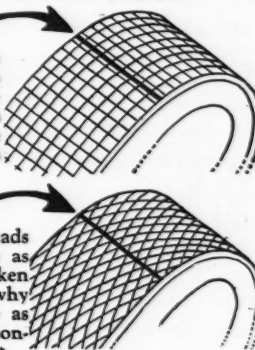
You make a friend when you put a new belt on. You earn a better than usual profit, too. A mighty satisfactory piece of EXTRA business.



**It's Gates Patents**  
—that make—  
**VULCO BELTS**  
hard to break—

Ordinary fan belts are plain weave. The threads in the belt run lengthwise and across. To break this belt on the marked line only the lengthwise threads need be broken.

In Gates Vulco Belts threads run diagonally. Twice as many threads must be broken to break this belt—that's why it resists breaking twice as long. This bias weave construction is a Gates patent.



*"The Standardized Fan Belt"*

# GATES VULCO BELTS

Manufactured by The Gates Rubber Company, Denver, U. S. A.

THE WORLD HAS A NEW AND FINER MOTOR CAR



"400" Special Six Sedan—116 inch wheelbase—\$1260 f. o. b. factory—fully equipped as shown

## Irresistible Buyer Appeal

*Nash Dealers Assured Most Profitable Business in Automobile History*

Pictured above is the Special Six Sedan, another of the sixteen models in the three new Nash "400" Series which has exerted an irresistible buyer appeal.

The striking beauty of this model with its new Salon body design, the amazing speed and power delivered by its great Twin-Ignition motor, its remarkable riding comfort and ease in steering, and the luxurious quality of its appointments, make it a car to be compared only with America's highest priced automobiles.

But the "400" price range is from \$885 to \$1990 f. o. b. factories—and this includes complete equipment with the exception of spare tire—thus placing Nash dealers in a position to more than meet the offerings of competitive lines.

The dealer who holds the Nash franchise today faces the happy prospect of the most profitable business in the history of automobile merchandising.

For details concerning available territories write the Sales Department.

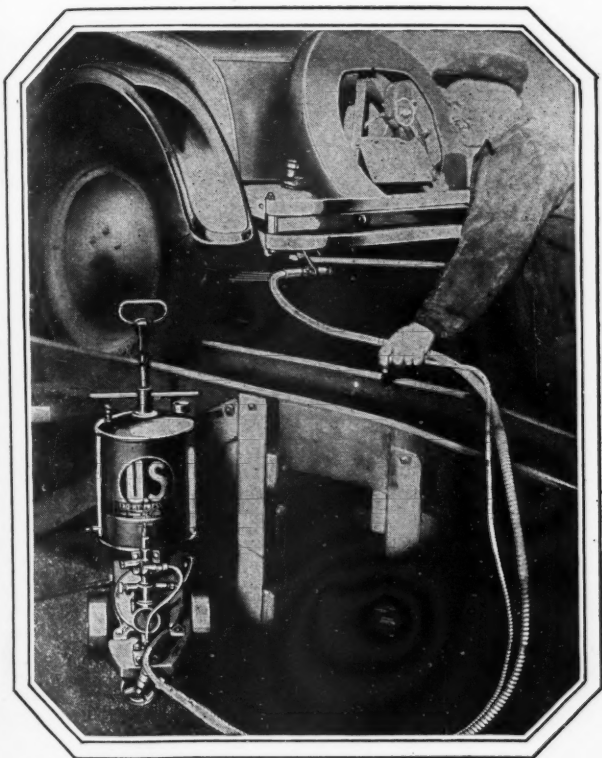
### Important "400" Features

- Three series
- 16 enclosed models
- 4 wheelbase lengths
- Salon Bodies
- Twin Ignition motor
- High compression
- Bohnalite aluminum pistons  
(Invar Struts)
- 7-bearing crankshaft  
(hollow crankpins)
- Houdaille and Lovejoy shock absorbers (exclusive Nash mounting)
- Torsional vibration damper
- New double drop frame
- Bijur centralized chassis lubrication
- Clear vision front pillar posts
- All exterior metalware chrome plated over nickel
- Short turning radius
- World's easiest steering
- Body, rubber insulated from frame
- Nash-Special Design bumpers and bumperettes

THE NASH MOTORS CO., Kenosha, Wisconsin

**New NASH "400" Series**





New Departure  
Equipped

The U.S. Greaser is a speedy, portable, self-contained, completely automatic unit for the high pressure greasing of automotive vehicles and designed for use by service stations, etc. Manufactured by the United States Air Compressor Company at Cleveland, Ohio.

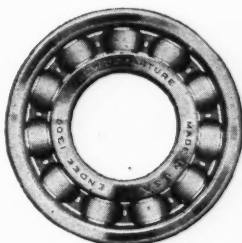
1044

## U.S. ELECTRO HY-PRESS

GREASERS protect their high-grade construction by using New Departure Ball Bearings on the cam. On this cam, which drives the integral air compressor and grease booster pump, New Departures impart positive friction-free action for indefinite periods without wear or need of adjustment.

The use of New Departures also simplifies lubrication and assures long life with very little attention.

New Departures in any mechanism, whether automotive or industrial, are a sure indication of good engineering practice throughout the machine.



# New Departure Ball Bearings

The New Departure Manufacturing Co.  
*Bristol, Connecticut*  
Chicago • Detroit • San Francisco

Six exclusively designed *Junior* styles for the beautiful *Light* cars. Another series is also made for larger cars such as Lincoln, known as the *Standard* series.



*So easy to sell*  
*So easy to install*

Just cement them on doors with our secret process cement, a little bottle of which is packed with each set of monograms . . . .

## This wonderful dealer help and you make \$2.25 net profit on every set of monograms you sell

Universal Monograms are made just like little pieces of jewelry. Wrought of pure nickel silver by master jewelry craftsmen—then electro-plated with *pure gold or silver*. Easy to sell every new car owner. Universal Monograms lend individuality and pronounce distinctive ownership to the car. Initials are individual units and are interchangeable—easily transferred in case of change in ownership of car. One Chicago distributor made \$2400 clear profit in one month. Absolutely no sales resistance. Quick profits and rapid turnover. Send \$1 today for sample pair of Junior monograms worth \$3.50 retail.



With an original order for 18 pairs of assorted Junior crests and 200 assorted initials and lodge emblems—total cost \$28.50, we furnish FREE an expensive display frame containing six sample crests and the stock box illustrated above. This effective silent salesman sells Universal Monograms on sight.

# Universal Monograms

### SAMPLE MONOGRAM FOR \$1.00

Universal Monogram Co.  
4424 Broadway, Chicago, Ill.  
(Export Dept., 126 Liberty St., New York)

Gentlemen: Enclosed please find \$1 for which I am to receive one set of sample monograms (Retail price \$3.50); also complete information including prices, discounts, etc.

NAME .....  
ADDRESS .....  
CITY ..... STATE .....



# MOTOR AGE

VOLUME LIV

Philadelphia, August 9, 1928

NUMBER 6

## Durant Motors Makes Increase

Accounts for 17 Per Cent of  
Total Gain of Entire  
Industry

### ORDERS AHEAD

ELIZABETH, N. J., Aug. 6—Durant Motors, Inc., contributed 17 per cent of the total gain made by the automobile industry during the first six months of this year, according to T. S. Johnston, assistant to W. C. Durant.

"During that period the industry produced 6.4 per cent more units than in the same period of last year, a gain of 132,906 cars and trucks," said Mr. Johnston.

"Durant, in the same period, produced 49.9 per cent more cars and trucks than in the first half of 1927, an increase of 23,000 units or 17 per cent of the total gain made by the industry. This gain shows a growth seven times as fast as the industry itself.

"Production gains are reflected in sales and registrations. In New York, Chicago, Los Angeles and Detroit, the key cities of the industry, Durant showed a gain of 126.8 per cent in registrations for the first five months of 1928 over the corresponding period of 1927.

"Preliminary returns from thirty-three states show that Durant gained 46.6 per cent in registrations during the first six months of this year over the same months last year, and export shipments show an increase of more than 65 per cent.

"The business has been so great that the Durant factories have, for a large part, been working night and day, Sundays and holidays in an endeavor to catch up with sales."

### R. P. Fohey Advanced

DETROIT, Aug. 2—R. P. Fohey, secretary-treasurer of Dodge Brothers, Inc., has been elected assistant comptroller of the Chrysler Corp. He will be in charge of all Chrysler accounting activities with reference to the operation of the former Dodge plants, reporting to L. A. Noehring, comptroller of Chrysler.

### Uhl Dayton Sales Head

DAYTON, Aug. 6—C. N. Uhl has been appointed manager of sales for Dayton Rubber Mfg. Co.

*With 2 New Cars,  
Bob Lee to Junk  
Ben Hur Chariot*

BOB LEE, secretary of the St. Louis Automobile Dealers Association, believes in a Santa Claus in summer.

Last June Bob was presented with a new Peerless coach by members of the Dealers Association. After riding around in a 1916 model "Ben Hur" all these years, Mrs. Lee quite justly took charge of the new car.

Hearing of his predicament, and not to be outdone by the auto dealers, members of the Accessory Association presented Lee, who is also secretary for the accessory group, with an Essex roadster for his own use. As a result of the double presentation Lee has promised that the "Ben Hur" will be the first wreck driven into the recently organized association junk yard when that establishment is opened late this month.

### Three Leave Dodge

DETROIT, Aug. 6—In a statement issued by Walter P. Chrysler, the resignations of three principal executives of Dodge Brothers, Inc., are announced. They are E. G. Wilmer, president; Frederick J. Haynes, chairman of the board, and Arthur T. Waterfall, vice-president. The trio, the statement says, are fulfilling long desired wishes by retiring.

### Prest-O-Lite Convention

INDIANAPOLIS, Aug. 4—Approximately 50 district salesmen from all parts of the country attended the recent sales convention of the Prest-O-Lite Storage Battery Corp. The delegates were housed at the Indianapolis Athletic Club and were transported to the Prest-O-Lite plant just opposite the world-famous Indianapolis Motor Speedway for the convention sessions.

### G. E. Distributes Bonus

NEW YORK, Aug. 6—General Electric Co. has distributed a bonus among its employees of five years' service or more amounting to \$1,600,905. This sum represents five per cent of the earnings of employees during the six months ended June 30 of this year.

## High Car Output Matches Demand

Both New and Used Stocks  
Moving; New Models  
Preparing

### FORD GAINING

NEW YORK, Aug. 8—High summer production rates are the rule at the majority of the leading automobile factories. A few have curtailed schedules, but others are just getting under way on new models and will be speeding up output for some time to come. Conditions in the field are excellent, with a strong demand for both new and used cars.

Buying in the agricultural regions of the Middle West has been particularly notable, but the industrial centers have proved good markets, somewhat better, in fact, than at this time a year ago.

Ford continues to gain slowly, and is now nearing the mark of 4000 units daily. The company is in position to assemble and deliver many more cars, but difficulty in obtaining parts continues to restrict output.

Stocks of new cars were rather high early in the summer, as compared with a year ago, but the increase could be justified by the greater volume of business enjoyed by most of the companies. In June and July, however, quite heavy inroads were made into the surplus, and conditions in this respect are regarded as sound.

### Durant Going Abroad

LANSING, Aug. 6—The expectant visit next week of W. C. Durant to this city has been postponed. The reason given is that Mr. Durant contemplates a trip to Europe soon and will not inspect the Durant Motor Co. holdings in Lansing until his return.

### Edwards With Franklin

SYRACUSE, N. Y., Aug. 7—Richard L. Edwards, for the last three years connected with Har-Gold Co., Inc., of New York City, has been appointed assistant export manager for Franklin Automobile Co.

### Lynn With Phila. Cadillac

PHILADELPHIA, Aug. 8—H. D. Lynn, former salesman with the Packard Motor Co. of Pittsburgh, has joined the local Cadillac sales force.



## General Motors Net Profit Gains

Statement Shows Corporation  
in Strong Financial  
Condition

DETROIT, Aug. 7—General Motors Corp. for the first half of 1928 had net earnings of \$161,267,974 compared with \$129,250,207 for the first half of 1927.

After dividends on preferred and debenture stock there remains a balance of \$156,565,974, equal to \$9 a share on the common stock compared with \$124,841,987 or \$7.17 a share in the first half of 1927, on a comparable share basis.

On June 30, cash, United States government and other marketable securities amounted to \$264,383,668, a record for cash and cash items in the history of the corporation. Net working capital was \$320,346,653, an increase of \$47,422,677 since Dec. 31, 1927, after deduction of the extra dividend of \$34,800,000 paid July 3, 1928.

Earnings for the second quarter were \$91,799,398 against \$76,698,799 in the second quarter of last year, a gain of \$15,100,599. The figures established new earning records both for the half year and the second quarter.

### Another De Soto Distributor

SPOKANE, WASH., Aug. 4—Hull-Stewart Motors, Inc. will shortly become De Soto distributor in the Inland Empire. Members of the firm are Paul H. Hull, formerly with the General Insurance Co. of America, and R. F. Stewart, formerly associated with William T. Barnard, Chrysler dealers.

### Becker With Green-Nash

SEATTLE, WASH., Aug. 4—E. J. Becker, former territorial service representative for Nash, has been appointed service manager for Green-Nash Corp.

## Sales Specialist



A. F. Osterloh

THE trend of advertising to enlist the kind of men who can think with advertisers from the advertisers' side of the desk is seen in the acquisition of the gentleman shown above by the Chicago offices of Erwin, Wasey & Co., advertising, Mr. Osterloh having been associated for 24 years with the Goodyear Tire & Rubber Co.

### Ford Expedition Sails

DETROIT, Aug. 4—The Motor ship, Lake Ormoc, which is carrying an expedition for the Ford Motor Co. to Brazil, where Ford has purchased 5,000,000 acres of Brazilian jungle land for development as a rubber plantation, sailed from Detroit July 26.

### New Presses for Oakland

PONTIAC, Aug. 7—Oakland Motor Co. is adding 13 toggle presses to the sheet metal plant. Two of these are said to be the largest of their kind in the world, exerting a pressure of 1000 tons at a single stamping.

## Graham-Paige Has Big Family Party

First Annual Legion Outing  
Brings Out Record  
Gathering

DETROIT, Aug. 6—The first annual outing of the Graham-Paige Legion which was recently held at Tashmoo Park required three large steamers to carry the 6000 guests comprising company employees and their families.

A. M. Verner, known as the "barbecue king of the South," came to Detroit from Atlanta with his staff of chefs, ready to prepare the Brunswick stew in a brick-lined trench of huge dimensions. Twenty pigs, 25 lambs, and hundreds of chickens will be cooked besides great quantities of vegetables.

A large list of field events featured the day with Kenneth McAleernan, of the New York Athletic Club, as referee, assisted by the honorary referees, Clyde Ford, mayor of Dearborn; Charles H. Brennan, president of the Michigan Association of the A.A.U.; J. M. (Pat) O'Dea, manager of the Graham-Paige factory branch at Detroit, and Ray A. Graham, secretary-treasurer of the corporation.

### Allen in Providence

PROVIDENCE, R. I., Aug. 7—Frank P. Allen, for some years manager of the Wills Sainte Claire Co., of New England, and before that with the C. E. Fay Company, handling the Chalmers, both at Boston, is vice-president of the newly formed Cadillac Providence, Co., with Milton J. Budlong president.

### Sulkins Joins Danker & Donahue

BOSTON, Aug. 6—Philip Sulkins, former president of the Massachusetts Automobile Operators Association, has joined the Danker & Donahue Co. sales force selling Packard cars.

## The Automotive Calendar

### SHOWS

Automotive Equipment Association, Coliseum, Chicago, Oct. 22-27.

\*Chicago, National Coliseum, Jan. 26-Feb.-2.

Eastern States Exposition, Springfield, Mass., Sept. 16-22.

National Standard Parts Association, Cleveland Auditorium, Oct. 29-Nov. 3.

\*New York, National, Grand Central Palace, Jan. 5-12.

Salon, Automobile Salon, Inc., Hotel Drake, Chicago, Jan. 26-Feb. 2.

Salon, Automobile Salon, Inc., Hotel Biltmore, Los Angeles, Feb. 9-16.

Salon, Automobile Salon, Inc., Hotel Commodore, New York, Dec. 2-8.

Salon, Automobile Salon, Inc., Palace Hotel, San Francisco, Feb. 23-March 2.

Toronto, Can., Aug. 24-Sept. 8.

### CONVENTIONS

Automotive Equipment Association, Coliseum, Chicago, Oct. 22-27.

National Standard Parts Association, Hollenden Hotel, Cleveland, Oct. 29-Nov. 3.

World Motor Transport Congress, Rome, Sept. 25-29. S.A.E.

Detroit, Book-Cadillac, Annual Meeting, Jan. 15-18.

Newark, Robert Treat Hotel, Transportation Meeting, Oct. 16-18.

New York, Annual Dinner, Hotel Astor, Jan. 10.

### RACES

Altoona ..... Aug. 18

Salem ..... Oct. 12

Syracuse ..... Sept. 1

\*Will have special shop equipment exhibit.

Oct. 10—Marketing Annual for 1929—Motor World Wholesale.



### The Winners

**MEET** the pennant-winning Towell-Cadillac team of the Cleveland Automobile Manufacturers and Dealers Association softball baseball league. Twelve teams started and finished the season. Games were played Wednesday evenings on diamonds in the city parks up to the final series played off at the annual picnic of the Association at Geauga Lake. The race was a close and hot one up to the last games. Reeke-Nash, Peerless and Towell-Cadillac went undefeated for weeks. The Bashaw-Oakland team "took" the Peerless sluggers by one run. Cadillac and Nash played a 10-inning tie, and then on the playoff of the tie in the finals Cadillac emerged victorious

### \$100 for Hit-and-Runners

BOSTON, Aug. 7.—Governor Alvan T. Fuller has had the Governor's Council set aside a fund out of which rewards of \$100 each are being presented to persons responsible for chasing hit-and-run drivers, or getting the facts leading to their apprehension. As a result, within the past few weeks several such drivers have been brought to justice and those responsible have been invited to the State House, where Governor Fuller has personally presented the checks and complimented the men for their activities. This has resulted in more attention being given to these drivers, and it is believed will lessen the tendency of motorists to flee after an accident.

### Falcon-Knights for Japs

SEATTLE, WASH., Aug. 8.—One of the largest shipments of automobiles ever to leave a Northwest port for the Far East was loaded aboard the N.Y.K. freighter Toyama Maru for Kobe, Japan. Sixteen freight cars discharged Falcon-Knights into the ship's hold, including sedans, four-doors and coupes.

### Chatfield to Go to Brazil

DETROIT, Aug. 4.—Daniel Chatfield, a member of the experimental department of the Ford Motor Co., has been ordered to Brazil to help in laying out the Ford rubber plantations.

### Thomas Bass Dies

DETROIT, Aug. 6.—Thos. Z. Bass, 48 years old, well-known in Detroit re-

tail automobile selling circles, is dead, following an operation for appendicitis.

### Million Dollar Sales

SPOKANE, WASH., Aug. 4.—The \$1,000,000 mark in automobile sales since the first of the year was recently passed by Transport Motor Co., according to Arnold Reading. Retail car sales for the first six months total 352, compared with a total of 358 for all of last year.

### Yeager Takes on Auburn Line

CAMBRIDGE, MASS., Aug. 4.—Walter H. Yeager has taken on the Auburn line as dealer.

*As a Potato—Yes  
But Not So Good  
As a License Plate*

— + — + —  
**A**UTOMOBILE license plates for Idaho next year will be plain, according to Fred E. Lukens, secretary of state. Next year's plates will be dead black with large orange figures, and no more "spud" shapes. It was thought the present idea was good advertising but the bulk of the advertising seems to have been of a facetious nature.

### "Thumb-Jerkers" Razzed

CAMDEN, N. J., Aug. 6.—State Senator Jos. H. Forsyth has answered a recommendation of the Camden County Grand Jury by promising that at the next session of the legislature he will introduce a law making "thumb-jerking" a crime and "thumb-jerking" tourists liable to arrest on sight. It is said that the "thumb-jerkers" had caused a number of accidents by standing in the middle of the road and forcing motorists to swerve aside in an effort to avoid hitting them.

### Stutz Cars Weymann Equipped

INDIANAPOLIS, Aug. 6.—Some of the most beautiful models in the entire Stutz line are those equipped with Weymann bodies—the light weight, flexible type of body. F. E. Moskovics, Stutz president, reports that three members of the Royal Family in England use cars equipped with Weymann bodies.

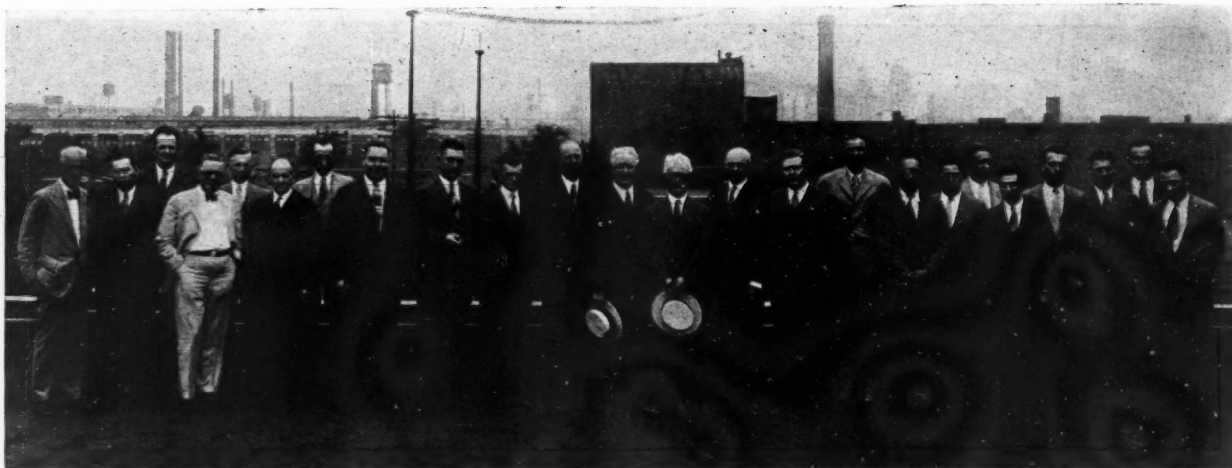
### K. C. Nash Changes

KANSAS CITY, Aug. 7.—C. J. Cox, R. W. Anselm, and G. A. Wood, formerly key man in the administrative and financial divisions of the Nash Levy Motors Co., have taken over the Nash distributorship under the firm name of Nash Midwest Motors.

### New Springfield Dealer

SPRINGFIELD, MASS., Aug. 7.—The Pioneer Motor Co. will open here tomorrow with a new six, presumably the De Soto.





### Sales Convention

WE have here a picture of those who attended the eighth annual McCord Radiator & Mfg. Co. service parts sales convention. Reading from left to right: C. Bailey, gasket plant manager; Robt. Dwyer, district representative; Lloyd Holley, special representative; C. W. Owston, vice-president in charge of production; C. Carr, special representative; J. R. Kirker, district representative; F. W. McMillan, sales department; H. Wise, district representative; R. A. Shappell, assistant sales manager; L. Hamlin, secretary; P. L. Barter, vice-president in charge of sales; A. C. McCord, president; D. W. McCord, vice-president; M. Dunn, vice-president; W. G. Hancock, sales manager; W. T. Meredith, district representative; J. Hollo, Eastern sales manager; W. Wells, district representative; H. Nevermann, sales department; P. Zimmerman, district representative; A. Gobb, superintendent gasket plant; G. Quinn, sales department; E. O. Bodkin, advertising manager; F. Brown, sales department.

### Milwaukee Co. Adds Two

MILWAUKEE, Aug. 6—Milwaukee Motor Products Co. has appointed C. T. Lucas district manager of the Western States. Mr. Lucas was formerly with the Monark Battery Co. W. L. Reineke, formerly with the Thermoid Rubber Co., will represent the company in the Central States.

### McDarby Optimistic

AUBURN, Aug. 4—N. E. McDarby, sales manager of Auburn, predicts that the last half of 1928 will be the greatest six months in the history of the automobile business in spite of the presidential year bugaboo. Mr. McDarby believes that more than a billion and a half dollars' worth of cars will be sold in this country between July 1 and December 31. This figure is many millions above any previous record.

### Airplanes for Salesmen

MOLINE, ILL., Aug. 7—Velie Motors Corp. is issuing a Velie Monocoupe for the use of the automotive sales department. W. L. Velie, vice-president, and F. E. Bradfield, general sales manager of the corporation, use the plane for business trips in the field. The company intends to equip all its field representatives with Monocoupes.

### Trone in Jobber Field

YORK, PA., Aug. 7—O. S. Trone has left the Manley Manufacturing Co. of York, where he was treasurer, to become vice-president and general manager of the Roper & Neagley Co., replacement parts jobber, York, Pa., and Baltimore.

### Goodyear Pension Plan

NEW YORK, Aug. 9—Goodyear Tire & Rubber Co. has arranged to reinsure

the pension plan which for a number of years has been operated for the benefit of Goodyear employees.

### Road to Mandalay Opened by Erskine —No Flying Fish—

THOUGH "The Road to Mandalay," immortalized by Kipling's ballad, is nonexistent as far as the motorist is concerned, word has just been received by Studebaker that a stock Erskine Six tourer completed the trip in the record-breaking time of 48 hours.

There are literally no roads between Rangoon and Mandalay—a distance of approximately 385 miles. But C. E. Berry, a Rangoon motorist, decided that the trip could be made. Occasionally there were narrow cart tracks to follow, but more often the Erskine blazed its own trail through the jungle. For five hours, at one stage of the trip, the car ploughed through soft paddy fields under a tropical sun. In other places the caravan made slow progress through deep sand.

One of the most trying sections of the trip took the intrepid motorists through a region of elephant grass, where progress was made at the rate of a mile in four hours.

### Cup for J. M. White

PHILADELPHIA, Aug. 4—J. M. White, owner and builder of the car in which Ray Keech established the world's automobile speed record of 207.55 miles an hour, was presented with a loving cup by the citizens of Daytona Beach, Fla., at a luncheon tendered in his honor by the Philadelphia Chamber of Commerce. The cup was presented by Mayor Armstrong of Daytona.

### Dewey Brown Star Salesman

SPOKANE, WASH., Aug. 7—Dewey Brown is the outstanding salesman of the Thompson Cadillac Co. here. He disposed of \$1,500,000 worth of Cadillac-La Salle cars during the past year.

### Ottawa Dealers Reorganize

OTTAWA, ONT., Aug. 4—The Automobile Dealers' Association has been reorganized as a joint stock company with provisional directors. Lorne McCoy of the Legare Automobile & Supply Co., Ltd., Ottawa, local Hudson and Essex distributors, has been appointed acting secretary.

### Waukesha Adds Building

WAUKESHA, WIS., Aug. 7—As the first unit of a plant extension program covering the coming year and contemplating an investment of \$600,000 in buildings and equipment, the Waukesha Motor Co. is beginning to work on a shop building estimated to cost \$100,000.

### Charles Wyckoff Dies

SIOUX CITY, IOWA, Aug. 7—Charles M. Wyckoff, one of the founders and first president of the Automobile Dealers Association, died suddenly following an apoplectic attack.



## Postpone Merger Group Meeting

Illness of McKenna Delays  
A.E.A. and M. & A.M.A.  
Plans

NEW YORK, Aug. 6—The meeting of the joint by-laws committee of the Motor & Accessory Manufacturers Association and the Automotive Equipment Association scheduled to be held in Chicago today is expected to be postponed for a few days owing to the illness of R. T. McKenna, general counsel of the M. & A.M.A., who, with M. L. Heminway, M. & A.M.A. general manager, was to bring into final form for presentation to the committee the revised by-laws discussed at the July meeting of the two groups.

"Presentation of the final draft of the by-laws to the joint committee, and official approval of this final draft by the M. & A.M.A. board and membership, is necessary to a final completion of the merger negotiations," J. M. McComb, president of the M. & A.M.A., said here today.

### Loiseau in America

MOTOR AGE is pleased to comply with the request contained in the following letter from Etablissements Georges Loiseau, S. A. au capital de 3,000,000 de Francs entierement verses Concessionnaires pour la Region Parisienne:—

"Being one of your subscribers, we would appreciate very much if you could publish in MOTOR AGE this following article, from which you could add or cut to your subsections.

"By indiscretion, we have been informed that Mr. Georges Loiseau, a pioneer of American automobile industry in France, has been called to Detroit before the presentation of the 1929 models manufactured by the General Motors. He has sailed from le Havre last Wednesday, July 25, on board S. S. la France.

"The Georges Loiseau Company, sole agent for Paris and surroundings of the Buick, La Salle and Cadallas automobiles, have recently purchased a very important garage, with the object of creating in Paris a most up-to-date service station, employing all the modern methods being used in America.

"During his sejour in the States, Mr. Georges Loiseau will study all the methods and systems and he is persuaded that sales are insured by good service given to customers.

"The French amateurs of fine cars are very anxious of the return of Mr. Georges Loiseau, to hear all about the new points of perfection brought on the 1929 models manufactured by the General Motors which will, with no doubt, be of a large success in the next Paris Automobile Show which holds in October."

## Jest—a Bit Cynical

By Sherman Swift

BILL'S got another job. It's the fourth in two years. All good jobs, too. In six months he'll have another and that'll be a good one. They always are. Bill hasn't been dismissed from any of the other jobs and he won't be from this one. I mean that he hasn't been summarily dismissed, or, as is done in certain cases requiring diplomacy, "permitted to resign." He's merely been told a polite lie about "a change of policy that makes it necessary, etc., etc." No one would have the heart to fire Bill. He's too hard a worker; too conscientious to merit such action. In one case he even received a substantial check when he left—to take his new job—and he writes his own letters of recommendation for the boss to sign.

Bill is a star sales manager in every sense of the word—except that he doesn't know a darn thing about sales managing! His idea of the job is to overdrive, overawe, oversell and overextend every man unfortunate enough to come under his jurisdiction. He treats the salesman of long year's standing exactly as he treats the tyro. When he first takes command—and command is the word—the totals immediately jump. In a month all records are likely to be shattered. The firm seems destined to take top rank. Bill is here, there and everywhere. Sales meeting every morning—at 8. Graphs, day-by-day totals, comparisons with last year and ven daily pep letters. "Get the business," is the one thing that every man who comes under Bill's rule hears from morning until night. When Bill snaps his fingers even stenographers accelerate; that's how commanding this seventeenth son of a Yankee whaleship skipper is. He's the Boss with a big B. His every remark is a demand for more orders. He doesn't care where they come from. That's the credit manager's worry. He can't even listen to a salesman for a minute without savagely interrupting him with, "That's ancient history—where's the 'bacon'?" meaning, of course, where's the order.

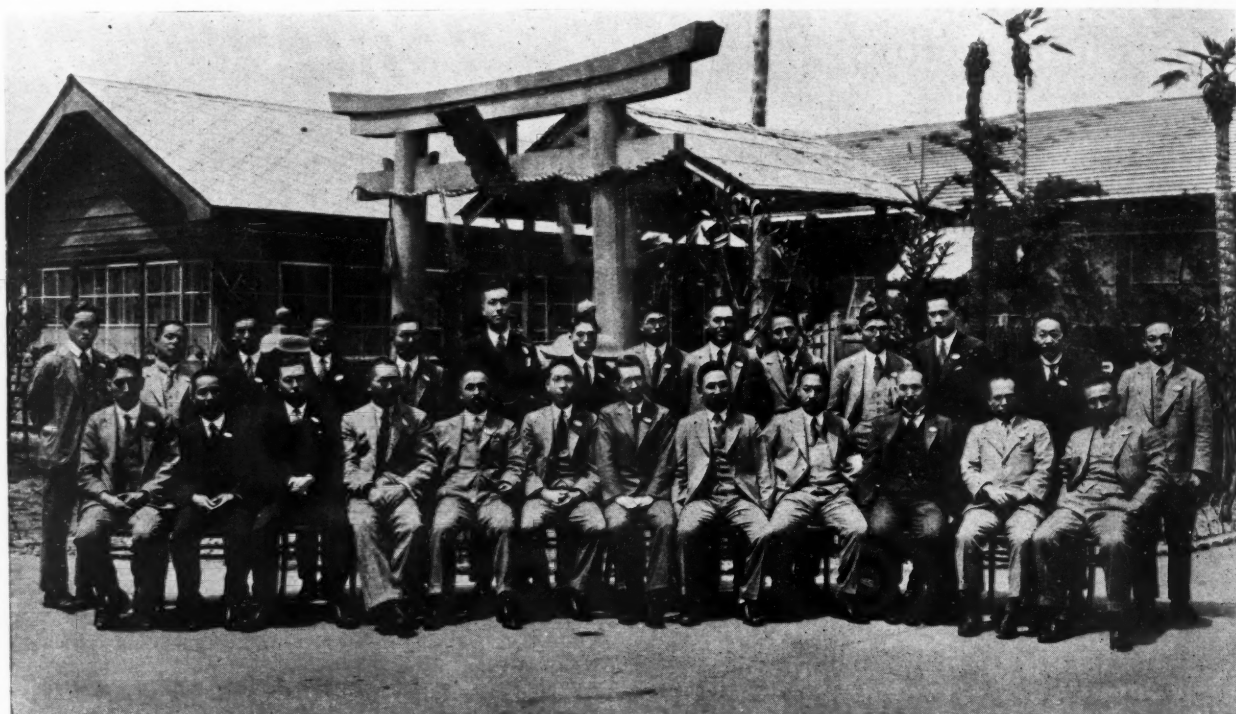
Not every salesman who works for Bill fears him. Far from it. The best men, those of long standing, usually appear at the office some fine morning and tell Bill, to his face, to go to hell. They leave him without a handshake and go over to Jones—taking half their trade with them.

This is about what will happen to Bill's new job. I know Bill well enough to hazard a forecast. For a while sales will skyrocket. There'll be plenty of new customers. The firm will have to order away beyond its quota and for one reason and another they'll borrow twice what they ever did before. They'll anticipate a future with sales coming in from every quarter of the territory. And they'll be right; but unless they're very careful, some of the customers they'll get will cost them money. Along about the third month some of their best salesmen will go to competitors. In four months the kicks from dissatisfied customers will about match the number of orders. Sales will be off a bit.

Bill will let 'er out another notch, start the morning sales meeting earlier and install a system of fines for tardy arrivals. He'll want to know why the blankety-blankety-blank they don't take more care in getting their orders; why they don't pick customers more carefully. If they can't make sales honestly they'd better get another job; if they can't make them stick any better than they have been sticking, they'd better get a dozen pencils and stand on the subway steps with a sign on their chests. Then, after thus moralizing, he'll fire up in an eloquent appeal for sale, sales, sales, sales—and God help the man who doesn't make 'em. After which he'll probably grab his own hat and dash out to see if he can't boost totals single-handed. He's a slave-driver, but he drives no one harder than he drives himself.

Finally the firm will call a meeting—attended possibly by the representative of a local bank—and the "new policy" will be inaugurated. Bill will ooze out. Then will begin the slow process of cleaning up. Old customers will be called on by the boss himself and asked to come back. Pretty soon the good salesmen—the fellows with the established trade—will come drifting back. Finally things will take on the old order. But it will require a lot of time and patience before affairs will again be running in the old groove.

Business today asks more of the sales manager than mere sales. True enough, sales are the great demand, but they must be clean sales; sales that will bring other sales; pleasant relations with old and new customers and, above all, leadership. The great sales manager, like the great general, is always a leader. It is for that reason that he is great. His men, by their admiration or genuine love, make him great. He can't be otherwise. The day of the driver is done.



### Japanese Go-Getters

*YOUR most honorable presence is requested at our garden party tomorrow. There will be story tellers, singers, dancers, and Geisha girls. Also the new and most illustrious Oldsmobile." That is approximately the way the Oldsmobile dealers of Japan "put over" the recent announcement of the new Oldsmobile. Of course they took plenty of newspaper space; decorated their showrooms, inside and out, with wisteria, invited the notables and prospects of their respective cities to the showroom and festivities and tied up with a non-stop run made across the island of Kyushu by holding a non-stop run of their own in their showrooms with a guessing contest. All of which tends to show that the U. S. has not a monopoly on live wire automobile dealers*

#### McCue With Lyon Metal

AURORA, ILL., Aug. 3—John M. McCue, Jr., widely known to automotive jobbers throughout the Southwest, has joined Lyon Metal Products, to cover the states of Texas, Oklahoma, Louisiana and Arkansas. He will be assisted by W. R. Hudson.

#### Thirty St. Louis Stars

ST. LOUIS, Aug. 4—Thirty salesmen of the Hudson-Frampton Motor Car Co. were taken on a three-day trip to the Hudson factory at Detroit last week as a reward for the high number of sales they made during the "Sell Your Quota" contest staged during July.

#### William H. Fauber Dies

NEW YORK, Aug. 6—William H. Fauber, holder of several basic patents for hydroplanes, died at his home in Brooklyn after an illness of two weeks. He is survived by a widow and two sisters. Mr. Fauber came into the aviation field from the manufacturing field, where he made articles for bicycles.

#### Travels East

ST. LOUIS, Aug. 7—R. A. Rawson, Moon general sales manager, has just completed a trip through the East. Sales meetings have been held at New York, Boston and Philadelphia.

#### Adds Service Department

MILWAUKEE, Aug. 7—United Motors Service, Inc., will add a complete department to its local branch. J. L. Winters is manager.

#### Plane Enough

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A VEHICLE propelled by a motor is a "motor vehicle," according to U. S. Webb, attorney general of California, in a ruling just handed down placing all airplanes operating in this state under the control of the motor vehicle department of the state government. Harry L. Houston, attorney for the department, is working on a new system of procedure for the imposition and collection of taxes on aircraft, and until this tax is levied and collected, there will be no funds with which to undertake supervision of planes in intrastate flight, according to Frank G. Snook, chief of the state motor vehicle department.

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#### N. Y. Sees New Buick Line

NEW YORK, Aug. 6—Introduction of the silver anniversary Buick to the New York market was made on a sumptuous scale by the local branch. The main showroom was redecorated in silver and blue, and the choice window space on Broadway was graced with a silvered phaeton of the new model. Practically the whole line, together with a stripped chassis, was included in the display on the main floor, and the eagerness of the crowd to see Buick's new offerings was witnessed by the constantly crowded condition of the floor ever since the exhibit began Saturday morning.

#### Peerless Financial Report

Peerless Motor Car Corp. and subsidiaries report net loss for the first six months of 1928 as \$597,528 as against profit of \$78,508 or 30 cents a share for the corresponding period last year. Net loss for the second quarter of the year is \$403,904 and compares with income of \$247,306 or 96 cents a share for the similar period last year.

#### Wire Wheel Dividend

Wire Wheel Corp. of America has declared a quarterly dividend on Class A preferred stock of \$1.75, payable Aug. 10 to stockholders of record Aug. 1.



## Buick Celebrates 25th Anniversary

Flint in Holiday Attire,  
Honors Motor Co. That  
Created City

FLINT, Aug. 4—Flint has taken on a holiday air in observance of the twenty-fifth anniversary of the Buick Motor Co. The streets are bedecked with flags and decorations in observance of the anniversary which was celebrated with a gigantic program Wednesday participated in by high executives of Buick and General Motors and thousands of workers and citizens.

A civic program was held in a large natural amphitheatre in Kearsley Park starting Wednesday afternoon. Flag raising, attended by a salute fired by a battery of Field Artillery, officially opened the program. Next the Buick "Silvery Anniversary" colors were flown and beginning at 4 o'clock the serving of free refreshments at the park continued throughout the afternoon and evening. Band concerts and dancing featured the afternoon with a surprise aerial feature at 6 p. m. The program continued through the evening, featuring a fireworks display with special pieces representing Buick's history.

A testimonial dinner to visiting General Motors executives was held in the Armory at 6 o'clock. Mayor William H. McKeighan delivered the city's congratulations and was followed by greetings from Alfred P. Sloan, Jr., president of General Motors, and Edward T. Strong, president of the Buick. Charles F. Kettering, vice-president, General Motors, also spoke.

### Drama Contest Open to All

DETROIT, Aug. 7—The Graham-Paige Legion \$1,000 prize drama contest for college undergraduates, originally restricted to the United States and Canada, has been thrown open to all other countries. To permit foreign students to compete, the closing date has been postponed to include manuscripts postmarked Oct. 15.

### Hornell Tire Co. Opens

HORNELL, N. Y., Aug. 7—The Hornell Tire Co., owned by Arthur Peters, opened here last week. The tire sales and service are housed in a recently completed modern building.

### Found Down Town Chevrolet Co.

JACKSONVILLE, FLA., Aug. 4—S. Z. Downs, J. H. Riggs and J. G. Banks-ton have obtained a state charter for the Down Town Chevrolet Co., Inc.

### Stutz Earnings Up

Stutz Motor Car Co. reports net profits for the half year ended June 30, before Federal taxes as \$440,935. This is equivalent, after deduction of taxes to \$1.67 a share on common stock

## Business Women



Herbert Photos.

**MISS LUCILLE BROUGHAM**, and her mother, **Mrs. Mona Brougham** (right), snapped at their tourist camp, and service station on U. S. Highway No. 40, about three miles west of Kansas City, Kan. Miss Brougham established the dual venture as a means of raising funds for a college education, and business came to the young lady so fast that Ma had to step in to help her daughter. Lucille will get her education, and Mrs. Brougham will continue the venture while her daughter is at school

and compares with \$123,024 or 53 cents a share for the corresponding period of last year.

### New Gardner Distributors

ST. LOUIS, Aug. 6—Gardner Motor Co., Inc., has appointed new distributors at Dallas and Indianapolis. The Gardner Dallas Co. is the new distributing organization for Dallas and the new Indianapolis distributor is the V. E. Bohannon organization.

### Van Cleef Advanced

NEW YORK, Aug. 4—Roller-Smith Co. announces the appointment of Elliott E. Van Cleef, 53 W. Jackson Boulevard, Chicago, Ill., as its district sales agent in Chicago. Michael B. Mathley, who has been connected with the Chicago office for many years, will be associated with Mr. Van Cleef.

### Thompson Buys Garage

SPRINGFIELD, MASS., Aug. 8—J. L. Thompson, manager of the Market Square Garage for the past eight years, has purchased the business from its stockholders. It is the oldest garage of its kind in the city, being opened 18 years ago as the first "drive-in" station.

### Johns-Manville Income

Johns-Manville Corp. reports net income for the first half of the current year as \$2,373,144. Income for the second quarter was \$1,600,438.

## Graham-Paige Output Record

43,556 Cars Built to July 18,  
Exceeding 12 Months'  
1923 Total

DETROIT, Aug. 6—Production by the Graham-Paige Motors Corp. for 1928 reached 43,556 this month, passing the total for the entire year 1923, which has heretofore stood as the high record for production in the 18 years' history of the factory. The next day's production put the total over 43,762, double the output for all last year.

### Two Awarded Honors

CORNING, N. Y., Aug. 7—Harry Gowan, salesman, and Glen Flasphaler, bookkeeper, of the Purcell Motor Co. of this city, were awarded honors in the national Chevrolet competitive examinations.

### Crum Sells Out Business

ELMIRA, N. Y., Aug. 8—Lemuel G. Crum, a former member of the firm of Crum & Holden, has sold his interest in that company and is now associated with Chemung Auto Sales Corp.



## Chrysler-Dodge Second to G.M.

Deal Gives Firm Tremendous  
Resources Totalling  
175 Million

NEW YORK, Aug. 6—Final consummation of the Chrysler Dodge merger, a report of which was published in MOTOR AGE of last week, is indicated in local financial circles to have been brought about when Dillon, Read Co., former owner of Dodge Brothers, went into the open market and purchased sufficient Dodge stock to bring the deposits up to the required 90 per cent.

The completion of this deal makes the Chrysler Corp. the second largest publicly owned company in the industry. According to the statement given out from Mr. Chrysler's office the joint permanent assets as of April 30, 1928, were approximately \$95,000,000, with working capital of \$80,000,000, and total resources of \$175,000,000. The acquisition of Dodge Brothers will give Chrysler 18 modern plants and 35,000 employees.

DETROIT, Aug. 8—Walter P. Chrysler has issued the following statement on the recent consummation of the Chrysler-Dodge deal:

"In assuming the ownership and management of the business and assets of Dodge Brothers, Inc., the Chrysler Corp. recognizes the real and implied obligations to the old Dodge Brothers, Inc., dealers and car-buyers, and welcomes into participation in ownership of Chrysler Corp. those Dodge Brothers, Inc., shareholders who have voiced their confidence in Chrysler management through the deposits of their shares under the plan.

"With this enlarged operation supported by the splendid, modern physical and mechanical facilities of Dodge Brothers, the Chrysler, Dodge, De Soto and Plymouth products can be offered to the consuming public with all the advantages of the most efficient production facilities and organization. But it is the confidence of the public in the fine product which Dodge Brothers has always built and the splendid dealer organization which we value most highly.

"This step has not been actuated by any desire for more size but to develop the many advantages which the association of these two properties will inevitably accomplish in administrative,

(Continued on opposite page)

### Carey-Kasube Co. Wins Prize

ELMIRA, N. Y., Aug. 8—Carey-Kasube Co., Oakland-Pontiac dealer, won second prize for a vacation time window display in the national competition.



By Lewis C. Dibble

THE largest crowds in history were on hand to see the new Buicks at the initial exhibits, says C. W. Churchill, general sales manager of Buick. He estimates the crowds were 40 to 50 per cent greater than in former years. The company's books are loaded with orders and a schedule of 32,000 cars for August is under way.

*Perhaps no factory in the automotive industry has undergone such a radical change as the Graham-Paige plants at Detroit. The other day, at the invitation of Robert C. Graham, vice-president in charge of sales, we were taken through the factory. Every available inch of room has been given over to manufacturing and parts storage while new buildings are being erected as rapidly as possible to increase plant capacity.*

Speaking at Flint the other night, Alfred P. Sloan, Jr., president of General Motors, declared that the greatest asset General Motors has is the good will of the public. In view of this fact he urged all members of the corporation's extensive family to leave no stone unturned to guarantee a continuance of this condition.

The automotive industry has been responsible for the creation of a number of profitable affiliated industries. Perhaps one of the most interesting of these is the manufacture of crating material for automobiles and parts. As an example the Evans Auto Loading Co., which specializes in materials for securing automobiles in freight cars, etc., enjoyed net earnings for the first half of 1928 of \$491,536. On the strength of this a 100 per cent stock dividend has been declared.

*Hudson-Essex cars are appearing in a smart new dress. Charming autumn shades are now being utilized in the color scheme but the company is not changing models at this time, says a factory statement.*

### More Women Drivers

SOUTH BEND, IND., Aug. 8—News of another achievement of Studebaker's Erskine Six in the hands of women drivers has just been received by Studebaker from Cape Town, South Africa, where two Cape Town women, Mrs. Doris Hume and Mrs. A. M. Smythe, recently completed a 4376-mile trip over trying roads in an Erskine Six.

The Erskine, a club sedan, won a wager of two hundred and fifty pounds (approximately \$1,200) for the two drivers and new laurels for itself by making the round trip from Cape Town to Victoria Falls via Port Elizabeth. Both drivers were highly enthusiastic about the performance of the car.

### Reposses Only 193 Cars

BALTIMORE, Aug. 8—The Commercial Credit Co. and its affiliations had only 193 repossessed cars in their possession at the close of the first half this year. This statement was made by A. E. Duncan, chairman of the board, in connection with the six months' report, which was made public at the same time.

### Another Goodyear Branch

SAN FRANCISCO, Aug. 6—A branch factory of the Pacific Goodrich Rubber Co. will be established here soon, according to F. E. Titus, general sales manager of the Goodrich corporation.

### Seat Covers for Airplane

ANCOR, OHIO, Aug. 7—What is believed to be the first set of seat covers ever put on an airplane was recently delivered to the International Aircraft Corp. by the Cincinnati Auto Specialty Co.

### Shackelford Enters Business

BIRMINGHAM, ALA., Aug. 8—W. T. Shackelford, former Oakland representative, has been made vice-president and sales manager of Sibert-Hayes Motor Co., Oakland-Pontiac dealer.

### Weaver Brothers Add Space

BIRMINGHAM, ALA., Aug. 4—Weaver Brothers, Durant dealer, has arranged to take additional space.

### Borg Warner Net Profits

Borg Warner Corp. reports net profit for the six months ended June 30 as \$2,304,300, equivalent to \$5.32 a share on common stock.

### Takes on Elmira Chevrolet

ELMIRA, N. Y., Aug. 6—Evans-Duntun Chevrolet, Inc., has taken over the Chevrolet business of Bolton Motor Co., Inc.

### Cooper Irvin Name Changed

The name of the Cooper Irvin Motor Co. has been changed to Walter Irvin, Inc.

## Cadillac Sedan for Sir Vallery

Motor Company Presents Car  
to Knights-Templar  
Head

DETROIT, July 31—One of the striking incidents of the thirty-seventh triennial convocation of the Knights Templar of America recently held in Detroit, was the gift at the organization's opening banquet of a Cadillac-Fleetwood sedan to the Most Eminent Grand Master George W. Vallery, of Denver. The car had been presented to the convocation committee by the Cadillac Motor Car Co. for presentation to Sir Vallery and was in constant use by him during the six-day convention.

The presentation was made by Jefferson B. Webb, vice-chairman of the convocation advisory board, who also read a letter from Lawrence P. Fisher, president of the Cadillac Motor Car Co., addressed to the Grand Encampment Knights Templar of the United States of America.

At the close of the convention and following the appointment of his successor, Sir Vallery visited the offices of the Cadillac company, where he met Fred J. Fisher, vice-president of General Motors; Lawrence P. Fisher, president of the Cadillac company; Lynn McNaughton, Cadillac vice-president, and H. M. Stephens, general sales manager.

Accompanying Sir Vallery were Charles A. H. Thom, general chairman advisory board 37th triennial convocation; Charles B. Van Dusen, chairman of finance committee, member of advisory board, and captain-general Detroit Commandery, No. 1, K. T., and Jefferson B. Webb, vice-chairman of the advisory board.

### Experiment With Deliveries

SAN FRANCISCO, Aug. 7—Experiments with motor truck deliveries, with the idea of improving traffic conditions, are being conducted by the San Francisco police department, under direction of Captain Charles Goff, head of the traffic squad, aided by J. J. Davis, general manager of the local branch of General Motors Truck Corp.

### Coast Loco. Changes Hands

SAN FRANCISCO, Aug. 7—Locomotive wholesale and retail distribution and sales in northern California and Nevada have passed to the newly-formed Locomobile Pacific Co. Joseph Klein is general manager and Erwin Klein, assistant general manager.

### Greenville Dealers Meet

GREENVILLE, S. C., Aug. 7—Greenville automobile dealers at a recent meeting discussed plans for adjusting the used car problem to bring about a more equitable basis of prices allowed

by the dealers in trades. A plan submitted by Herbert Simon, veteran automobile dealer of this city, was approved and will be placed in operation at once.

All but three of the dealers were represented at the meeting.

## Chrysler Statement

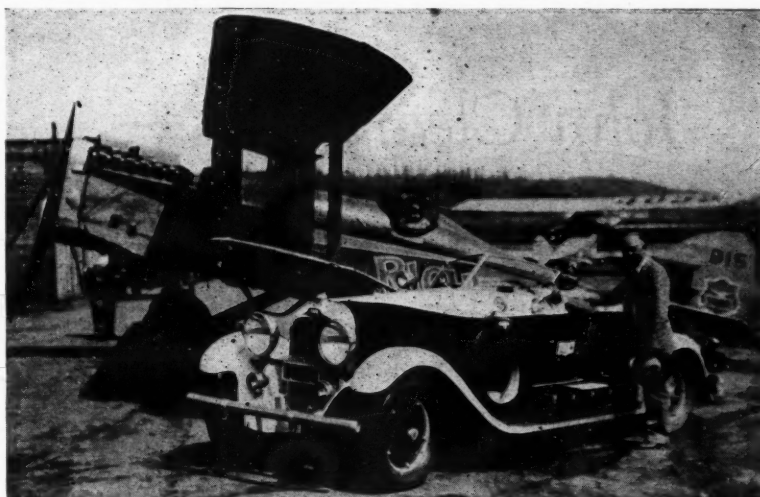
(Continued from opposite page)

manufacturing and purchasing economies. It also provides immediately increased facilities needed to care for the rapidly expanding Chrysler business.

"Nowhere, possibly, save in the automobile manufacturing industry have the benefits of large-scale operations been so fully realized, or so promptly passed along to the public through better values offered. Only the largest of units can at this stage of the development of the automobile industry, operate with the efficiency and economy required to fully develop the opportunities presented by the remarkable growth of the market, domestic and foreign, for automobiles.

"Chrysler Corp. intends to use every effort to conserve the world-wide goodwill of Dodge Brothers. In fostering ever higher quality and lower costs to the car-buyer and in promoting pleasant relations with dealers it expects to sustain and steadily stimulate the earning power of the splendid, established enterprise.

"The Dodge Bros. factory organization have earned the reputation for producing automobiles of highest quality and workmanship. This splendid factory organization will continue to produce Dodge cars of the traditional Dodge value."



### Endurance Run

*CHAINED to an Auburn 115 Speedster, Dick (Speed) Whitney is making a 7000 mile trip along the Pacific coast from Seattle, Wash., to Mexican territory as an escort for the night flying airplane piloted by Don Templeman and Jack Kirby. The car will be stopped (not the motor) only for refueling and is running in advance of the plane in its schedule*

## Franklin Service Managers Meet

"Most Successful Convention"  
Held at Plant; Baker  
Speaks

SYRACUSE, N. Y., Aug. 6—Nearly 200 service managers and their aides attended the Franklin service men's convention held here recently at the Franklin plant. J. J. Leyerle, factory service manager, was in charge of the convention which was declared the most successful in the history of the company.

Three topics being discussed at each afternoon session. One night session was held at the Drumlins Country Club, a session of the open forum type following the serving of a dinner. At this session many interesting topics were brought out concerning the new Franklin Airman Limited which was recently introduced.

Cannon Ball Baker, who recently established a new transcontinental round trip record in a Franklin Airman, from Los Angeles to New York City and return, addressed the service men and gave a complete outline of the unusual performance of the Franklin in its record-breaking trip two ways across the country.

### Take Franklin Line

SAN FRANCISCO, Aug. 8—Distribution of Franklin for northern California and Nevada passed, late in July, to the newly-formed Franklin Pacific Motor Co., with Charles A. Penfield as president and general manager.



## John Cleary Says—

Total production and sales of motor vehicles for the first six months of 1928 were considerably ahead of last year's figures for the same period.

General Motors' net earnings for the first half were \$32,017,767 over the corresponding period of the corporation's banner twelve-month, 1927.

The Chrysler Corp. has taken over Dodge Brothers and thereby becomes the second largest publicly-owned company in the industry.

Model A Fords are becoming numerous on the highways, the company now building about 3800 cars a day.

Durant has made a dramatic re-entry into the picture with a production in excess of 69,000 cars during the first six months, a gain of 49.9 per cent.

Hupmobile quadrupled its earnings; before the first six months were ended Graham-Paige had exceeded the business of the entire previous year; Hudson-Essex, Packard, Auburn, Studebaker, Nash, Willys-Overland and the others, with few exceptions, report amazing sales and profits.

A flood of new models has kept buying interest at a high pitch.

C. A. Vane, general manager of the National Automobile Dealers Association, writes in the August number of *Automobile Trade Journal* that there are more successful automobile dealers today than ever before in the history of the business.

Parts, accessory and equipment

business have kept pace with the vehicle end of the industry.

And all this is happening in a presidential year.

What has become of the talk of the presidential year bugaboo?

There is certainly no lack of interest in the presidential campaigns and the election that will end them. If anything, the general interest in the coming election is more widespread than for many years. The personalities of the candidates and the points of discussion involved provide topics of conversation for Mr. Big Business and Mr. Common People and their wives and families. And no one can say that those topics are not being threshed out everywhere at every opportunity.

Why, then, has business continued to prosper, instead of going into a slump, as it has done in so many election years heretofore?

The answer is that, in those previous election years, business sloughed off because business men anticipated that it would—and acted accordingly. The belief in a slump amounted to a superstition. It was taken for granted.

This year the automotive industry took nothing for granted. It defied the presidential year superstition and went out after the highest marks it could reach in production, sales and profits.

The age of precedent has passed. This is the age of change, and the automotive industry is its prophet.



# Speed Knights of Water, Land and Air

The water knight at the left is A. H. Packer, formerly of MOTOR AGE and now writing about the Reo for the Buchen Company. He is a brother of our own Clarence Edward. The cup is the \$1,000 Lipton trophy, which he won with his "Flying Cloud" in the annual regatta of the Western Division of the American Canoe Association. The smile is the smile of Clarence but the cup is the cup of Herb

In the group below are: Fred J. Fisher, vice-president General Motors; Sir George W. Vallery, retiring Most Eminent Grand Commander of the Knights Templar, to whom a Cadillac Fleetwood sedan was presented; Exalted Cadillac Grand Sales Knight H. M. Stephens; Lawrence P. Fisher and Lynn McNaughton, Cadillac president and vice-president

©Underwood  
& Underwood



To the left is shown the presentation of a section of a cylinder from a Franklin air-cooled engine to Land Knight Cannonball Baker after he had established a new transcontinental round trip record in a Franklin Airman.



In one, two, three order above are pictured W. L. Velie, sitting in one of his early products, a Velie carriage built over 23 years ago; his son, W. L. Velie, Jr., standing by one of the latest Velie creations in automobiles, a Velie 6-77 Royal sedan; and a Velie Monocoupe, product of Mono Aircraft, Inc., a company founded by Mr. Velie for the manufacture of a small plane for the private flyer

# A Shop Without *a* Foreman

*Where Every Mechanic is His Own  
Boss and the Flat Rate  
System is the Incentive*

By H. Bethea

**A**T first thought it would seem that to deprive a service shop of its foreman would be equivalent to relieving a chicken of its head. In other words, the common expectation would be an aimless flopping about with the future holding nothing in store but a luckless demise.

Not so, however, as proved by the experience of the Hammond Motor Co. of Birmingham, Durant distributor for the northern part of Alabama. Listen to what C. Kirby Hammond, vice-president of the company, has to say:

"Our shop, which has been operating for several months now without a foreman, is our greatest asset in selling customers and keeping them sold on Chrysler cars. We reasoned that our men would take more interest in their work and more pride in having it come up to specifications if they were put on their honor. So we did away with the foreman, and the results since then have justified our reasoning.

"Not the least of our satisfaction comes from the fact that for the first time in three years our shop, under the no-foreman plan, has shown a profit. We are naturally proud of the loyalty and good faith our employees

have shown us as a token of their appreciation of our confidence in them."

Of course it would not have been possible for the Hammond company to remove the foreman or supervisor and continue a system of salaries for the employees in their mechanical departments, because there are too many in every walk of life who are guilty of the negative sin of procrastination when the other fellow

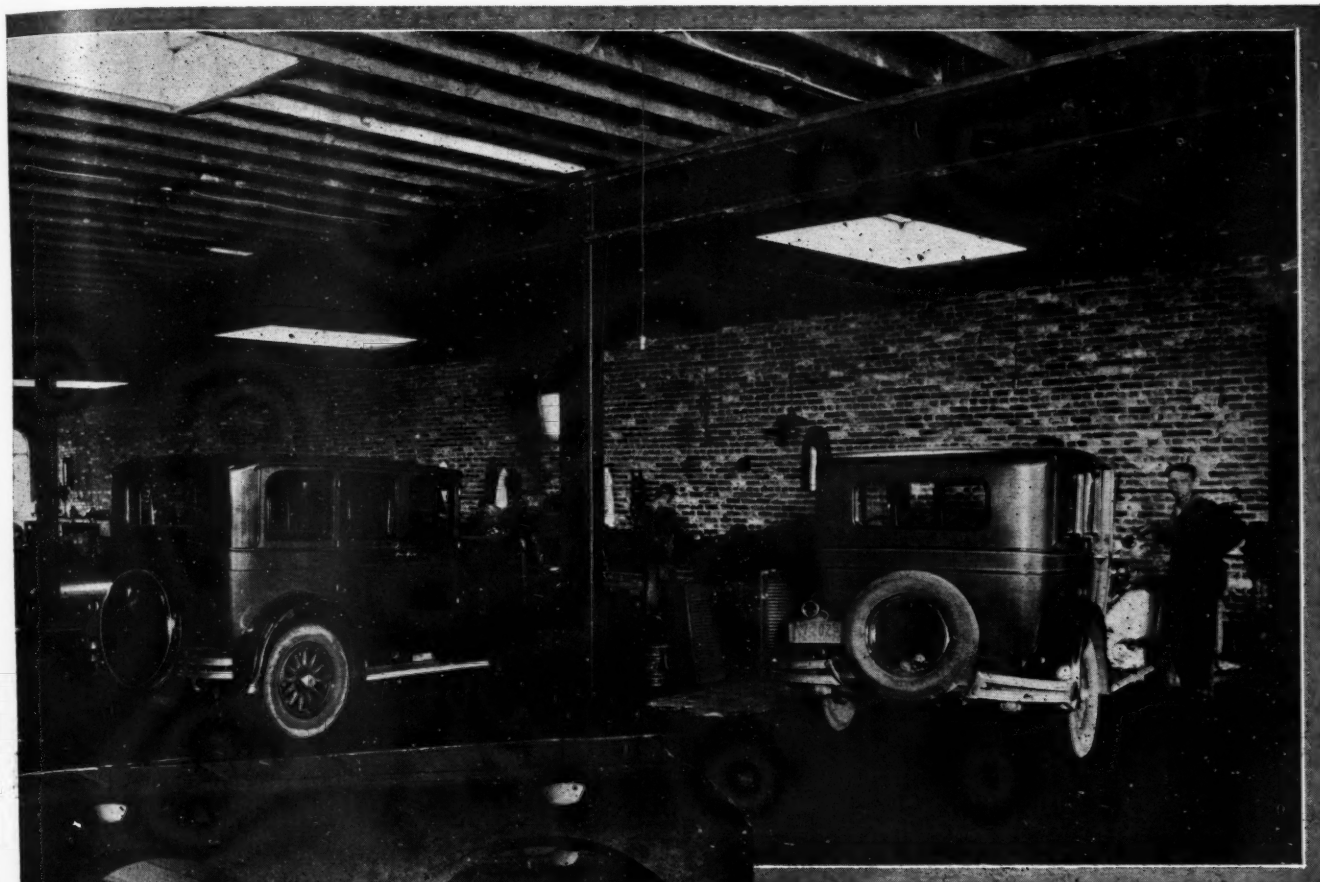


*Right: Showroom of the Hammond Motor Co. The firm now handles the Durant line*



*Left: Exterior view of the Hammond Motor Co. quarters. The second floor is devoted to the service shop that operates without a boss*





*Part of the foremanless shop of the Hammond Motor Co., of Birmingham, Ala.*

although it had been assured by experts on every hand that the shop should be the money-making end of the business.

The company had employed one of the best of mechanics as foreman of the service shop, and he had been constantly on the job. He had kept right after his men, and had turned out good work, but somehow the work had been slow in coming out; too much time was spent on the jobs. The shop always seemed busy but the volume of work was not sufficient to justify the size of the force. Still, it looked as though fewer men could not handle the constant demand for service.

Mr. Hammond made inquiries of other shops and found that the conditions there were similar to the ones to be found in his own organization. There was some variation of the degree of similarity but, on the whole, they were just about the same.

So the management held a council of war, and decided it could not afford to have a shop that cost the concern actual money every month it was in business. On the other hand it could not stay in the business of selling cars and fail to maintain an adequate service for its customers. So the problem was put squarely up to the mechanics in the shop, and practical men that they are, the mechanics, without realizing that they would do it, solved the problem.

In the first place the foreman's position was done away with.

Together then, the management and the shop men figured out fair flat rate prices for the various jobs in the shop. A price was placed on every single service that was given in the shop, and the amount of money a mechanic earned was judged by the amount of work

*(Turn to page 34, please)*

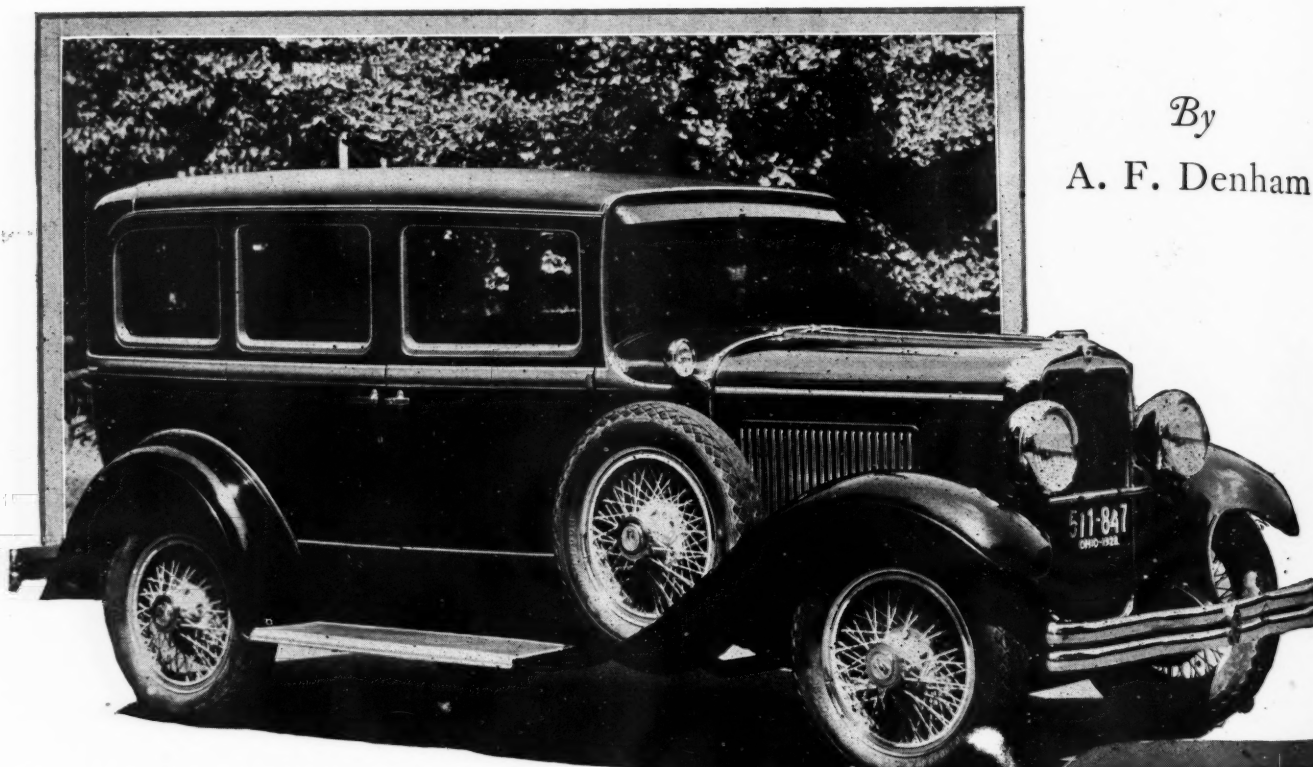
is footing the bills. So the Hammond Motor Co. told the mechanics that the amount of money that they made was entirely up to them, set down the rules of the game and the rate at which every man would be paid, and left them to work out their own salvation. The result was a net gain for the individual workers and a balance on the profit side of the ledger for the Hammond Motor Co. This is the history of the plan:

For the past three or four years the Hammond Motor Co. has been handling cars in parts of northern Alabama, and doing splendidly in the selling end of the business. But its shop had always been a liability. The firm had never been able to make it show a profit,



# Peerless Replaces 8

By  
A. F. Denham



*The attractive body lines of the new 81, Peerless medium-priced six, are shown to advantage in this view of the four-door sedan. Wire wheels and fender wells are extra*

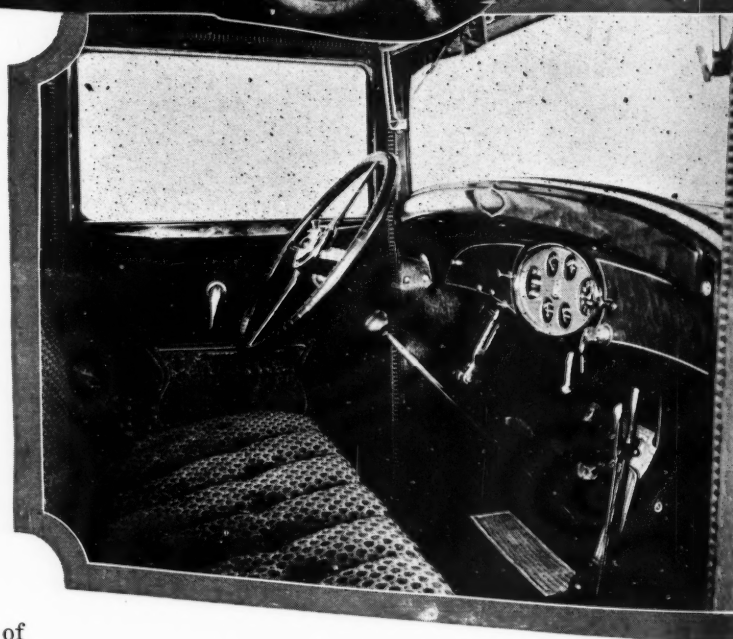
**A** PRACTICALLY new engine and new bodies feature the announcement of its new 81 series by the Peerless Motor Car Co. to replace the present Series 80.

In general body lines, those of the Series 91 announced last fall are fairly closely followed, although numerous minor refinements developed since that time have been incorporated. These include a new form of radiator shell, flush type filler cap, large round wheel hubs, chrome-plated, and chrome plating for all exterior hardware, etc.

Featuring the engine changes is the increased power available through an increase of  $\frac{1}{8}$  in. in bore, this engine now having a bore and stroke of  $3\frac{3}{8}$  by  $4\frac{3}{8}$ , a piston displacement of 248 cu. in., and a rating of 27.3 hp. Crankshaft dimensions remain unchanged, but the Lanchester torsion damper at the front end has been placed back of the fan pulley for better accessibility of the fan belt. The damper is also larger than formerly.

New quieting contours, through the use of longer ramps, are found on the camshaft. Pistons have been changed over to the Nelson Bohnalite three-ring type, the lower ring being of the oil control Perfect Circle double oil seal type. A new form of combustion chamber, with higher turbulence than formerly, has been adopted, compression ratio simultaneously being increased to 5.06 to 1.

Built into the cylinder head is the water circulation control thermostat. Other changes in the cooling sys-



*The term de luxe best characterizes the interiors of the new 81 models, as may be seen by this view of the front compartment*

tem include the removal of the water pump from the front of the cylinder block, to a place in back of the generator. This has been done to make possible the raising of the fan to a more efficient position with reference to the increased height of the radiator. The fan itself is of the self-oiling type, incorporating a gear pump within the hub.

# 80 with Series 81

*New Medium-Priced Six Has a Virtually New Engine, and Reveals Incorporation of a Number of Body Refinements. Offered in Four Body Models*

In the fuel system a Stromberg carburetor has been adopted, this unit containing a plunger type accelerating well. It has a 1¼ in. vertical outlet. Of equal importance is the adoption of an AC fuel pump, driven off the camshaft, to replace the vacuum feed system. The latest type of AC air cleaner, having an oil-soaked, steel wool strainer is also found on the new 81. Manifolding is finished in vitreous

## Peerless 81 Models and Prices

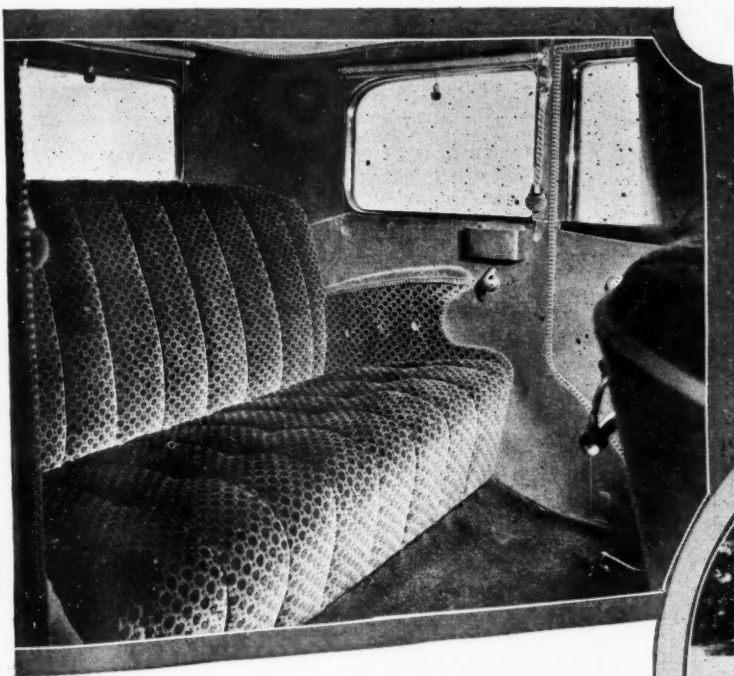
Following are prices for the new Peerless Series 81:

Body Model	New Price	Increase
Five-passenger touring .....	\$1,540	\$245
Seven-passenger touring .....	1,595	New
Two-four-passenger coupe .....	1,595	200
Five-passenger victoria .....	1,595	200
Five-passenger 4-door sedan .....	1,595	200

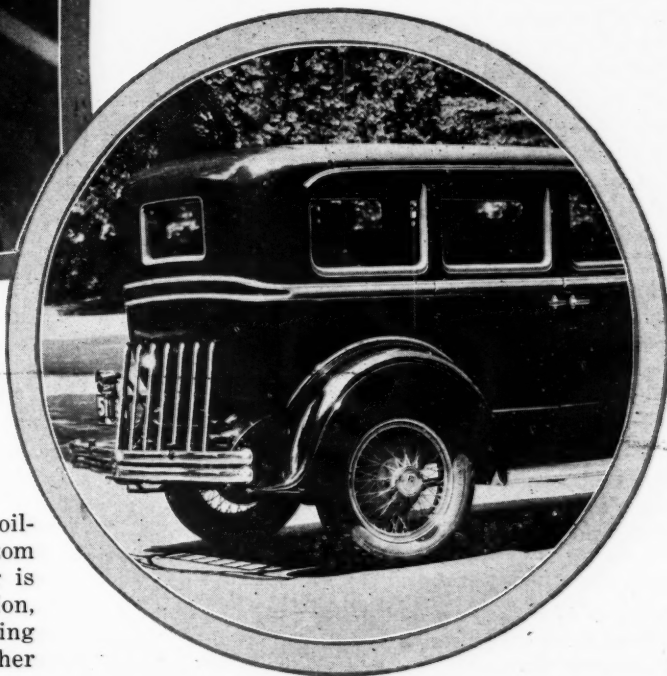
side of the frame channel, the inner one being L-shaped to fit along the inside of the bottom frame flange. At the front two horizontal plates are used above and below diagonal braces from the front cross-member to the frame, used for the motor mounting.

These plates have flanged extensions to form a rubber bushing in the bolt hole for complete insulation as at the rear.

With the full rubber mounting, two torsional 2¼ in. tube type frame cross members have been added. One of these is immediately below the rear of the engine, while the second is located just back of the transmission case. The diagonal braces at the front cross-member already referred to aid in stiffening the front to prevent weaving. A further strengthening of the frame is found in the adoption of a wide plate type cross-member at the rear, forming a cover over the gasoline tank. Radiator braces have also been added.



Comfort and dressiness are also in evidence in the above view of the rear compartment of the four-door sedan. At right is a view of the rear of the four-door sedan



enamel for better appearance.

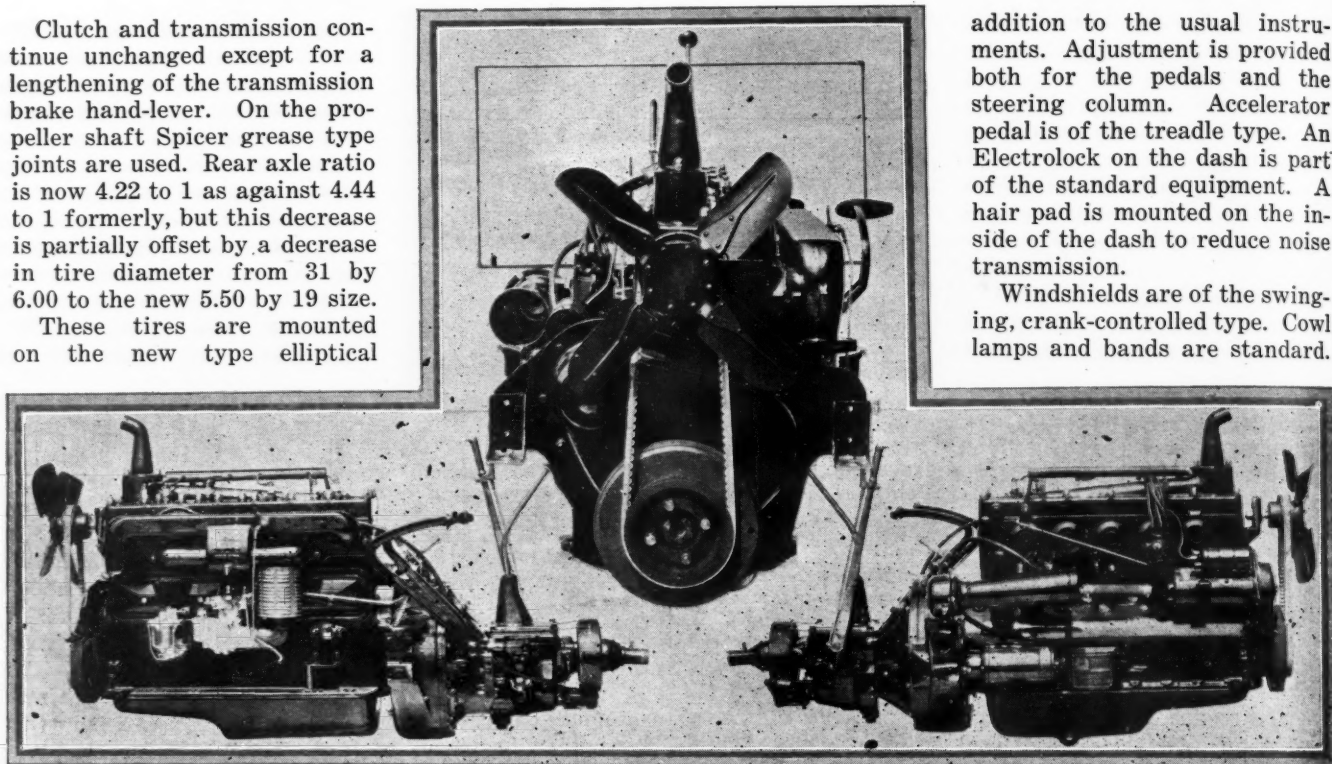
A number of improvements are also found in the oiling system. The oil pump has been placed in the bottom of the crankcase for added insurance. A purulator is mounted on the dash. Four-point engine suspension, rubber-insulated, is now used. At the rear mounting the rubber is in the form of two plates, one at either



## PEERLESS REPLACES 80 WITH SERIES 81

Clutch and transmission continue unchanged except for a lengthening of the transmission brake hand-lever. On the propeller shaft Spicer grease type joints are used. Rear axle ratio is now 4.22 to 1 as against 4.44 to 1 formerly, but this decrease is partially offset by a decrease in tire diameter from 31 by 6.00 to the new 5.50 by 19 size.

These tires are mounted on the new type elliptical



*Left side, frontal, and right side views of the new Peerless 6-81 series engine*

addition to the usual instruments. Adjustment is provided both for the pedals and the steering column. Accelerator pedal is of the treadle type. An Electrolux on the dash is part of the standard equipment. A hair pad is mounted on the inside of the dash to reduce noise transmission.

Windshields are of the swinging, crank-controlled type. Cowl lamps and bands are standard.

spoke wood wheels, there being 10 spokes to the wheel, which together with the larger hub caps gives the impression of greatly increased sturdiness of these units. Demountable wire and disk wheels are offered as extra equipment at extra cost, fender wells being included with such equipment, and the rear of the car in this case being dressed up by the addition of a trunk rack.

Internal Lockheed hydraulic brakes are now used on the 81. These are of the two-shoe type, the shoes being of single piece aluminum alloy, with eccentric pivot-pin adjustment for concentricity. The master cylinder is of the submerged type. Drum diameter is 12 in. front and rear, and brake lining has a width of 1 3/4 in., molded composition lining having been adopted.

For easier steering a cam and lever variable ratio steering gear has been adopted. A new steering wheel is also used, with a hard-rubber rim over a steel ring and an aluminum spider. Minor changes in the frame, in addition to those already mentioned, include the use of integral bumper brackets and a cast flange at the bottom of the front spring horns to furnish a stop for the shackle to keep the latter from turning under, under exceptionally heavy deflections.

Body lines are best shown by the accompanying photographs. It will be noted that a very wide belt molding is used, splitting into two narrow bands around the rear. The full-crowned fenders are of one-piece construction and beaded along the edge. Their longer sweep results in a shorter running board. A cheat line molding also appears along the bottom of body side panels. Top side panels are formed by extending the top covering rather than by the use of metal stampings.

Interiors of cars represent de luxe finish. The instrument board, which is similar to that of the 91, mounts a clock, engine thermometer and dash gasoline gage in

All exterior hardware is finished in chrome plating. Headlamps are of the Tiltray type, using double filament bulbs. Four Lovejoy hydraulic shock absorbers are furnished as standard equipment in addition to vanity case, toggle grips, arm rests, curtains on rear and rear quarter windows, and door pockets on all doors of closed cars.

Weight complete, ready for road, of the standard sedan is 3395 lb. Wheelbase is 116 in. Four body models are offered at present, a sedan, coupe, victoria, and a phaeton.

Prices of the new Series 81 are from \$200 to \$245 higher than the preceding series, but part of this increase is offset by the additional equipment offered as standard. Such equipment now includes bumpers, rear and front, Lovejoy shock absorbers all around, automatic windshield wiper, tire lock, etc. De luxe equipment, including six wire wheels with the spare mounted, and fender wells and the trunk rack substituted for the rear tire carrier, lists at \$180 additional. The same equipment with disk instead of wire wheels is listed at \$135 extra.

### Only a Wish Bone Needed

**H**IS eighteenth-year-old flivver will do anything he wishes of a car as well as a new and higher priced machine, George M. Barber, a Manchester octogenarian declares. The remarkable record of car and owner came to attention a few days ago when the owner and the time-honored mount figured in a slight mishap. He accidentally backed into the mudguard of another machine and on being assured that his old timer needed nothing more than a new wish bone the octogenarian promptly ordered the needed part installed and went along his way afterwards.



# When Honorable Japanese Dealers Get Together

*The Nipponese Follow the American Custom of Greeting New Models With the Exception That They Eat in Their Stocking Feet*



*Above: Introducing the new Oldsmobile to Japanese dealers*

*Left: When banquet time comes around the Nipponese gentlemen take off their shoes and pitch in. Geisha girls take care of the serving and the entertaining*

**Y**OUR most honorable presence is requested at our garden party tomorrow. There will be story tellers, singers, dancers, and Geisha girls. Also the new and most illustrious Oldsmobile."

That is approximately the way the Oldsmobile dealers of Japan "put over" the recent announcement of the new Oldsmobile. Of course they took plenty of newspaper space, decorated their showrooms, inside and out, with wisteria, invited the notables and prospects of their respective cities to the showroom and festivities, and tied up with a non-stop run made across the island of Jyushu by holding a non-stop run of their own in

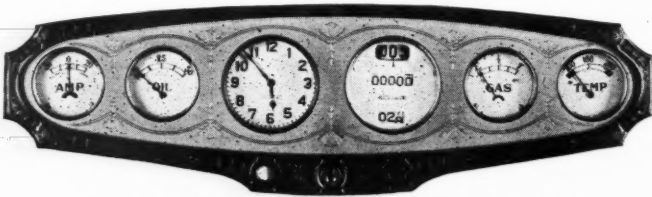
their showrooms with a guessing contest. All of which tends to show that the U. S. has not a monopoly on live wire automobile dealers.

Three weeks before the announcement date the Oldsmobile dealers held a meeting with officials of General Motors Japan Ltd., at Osaka. This session would have tickled the most go-gettingest, high pressure sales manager in Detroit or points east or west.

After a 10-minute welcome, the Nipponese Oldsmobile dealers were regaled with pep talks on objectives and plans for 1928; mechanical details, parts handling; financing, advertising and sales promotion. They were shown the new Oldsmobile and informed that this car would "knock 'em for a goal," or its Japanese equivalent.

*(Turn to page 28, please)*

# Marmon Increases



The new Marmon instrument panel, lighted indirectly by two bulbs. The 78 is with clock and the 68 without

*Series 68 Has Larger Bore and Piston Displacement; Combustion Chambers Changed in Shape to Increase Turbulence. Series 78 and 68 Feature Specially Designed Vibration-Absorbing Clutch. Prices Slightly Higher*

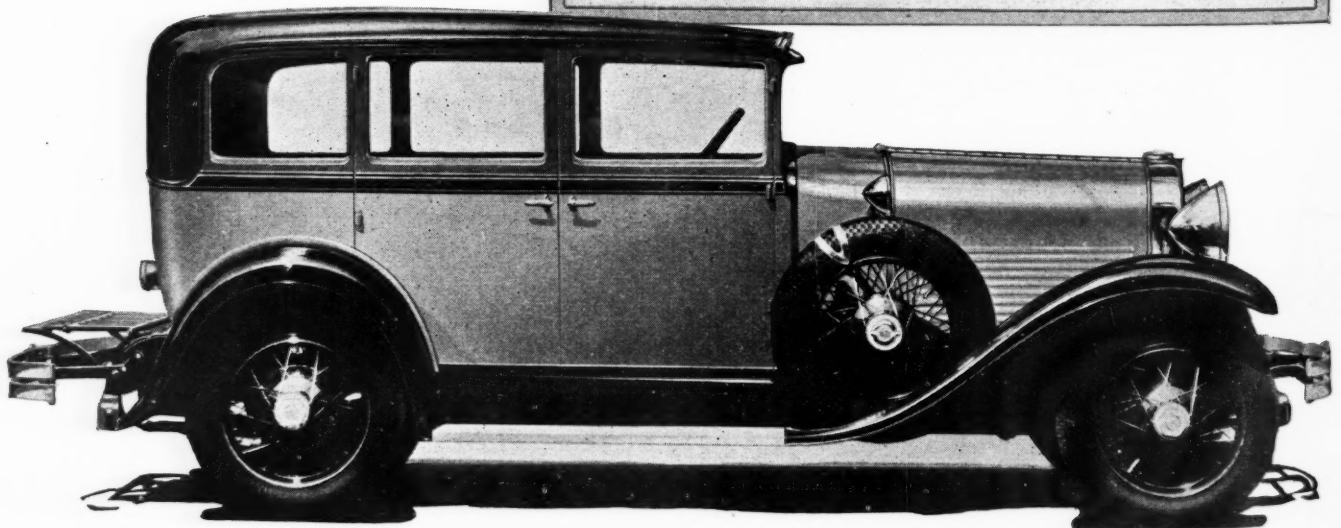
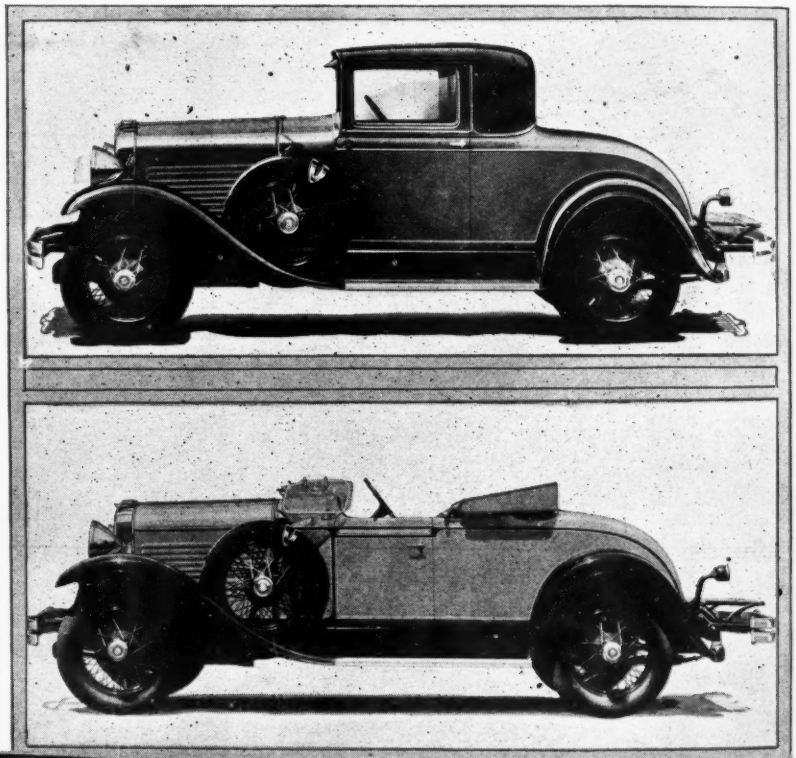
**M**ORE power and speed in the new Series 68 and refinements in beauty, appointments and riding comfort in both the 68 and 78 lines characterize the midsummer offerings of the Marmon Motor Car Co..

Four body styles in each series are ready for dealers at the present, with others to be added at later dates. Each series will consist at this time of a five-passenger sedan, coupe with rumble seat, victoria coupe and a roadster with rumble seat. Prices are slightly higher than the 68 and 78 series shown late last year.

Horizontal louvres, running nearly the full length of the hood, help to give the new cars the most attractive appearance of any Marmon automobile seen heretofore. Radiators are larger, higher and more massive in appearance, and new headlamps and bumpers give the cars a nice symmetry of line. All bright work, including radiator shell, bumpers, headlamps, cowl bead and lamps and rear traffic signal, is chromium-plated over nickel.

A number of additional improvements

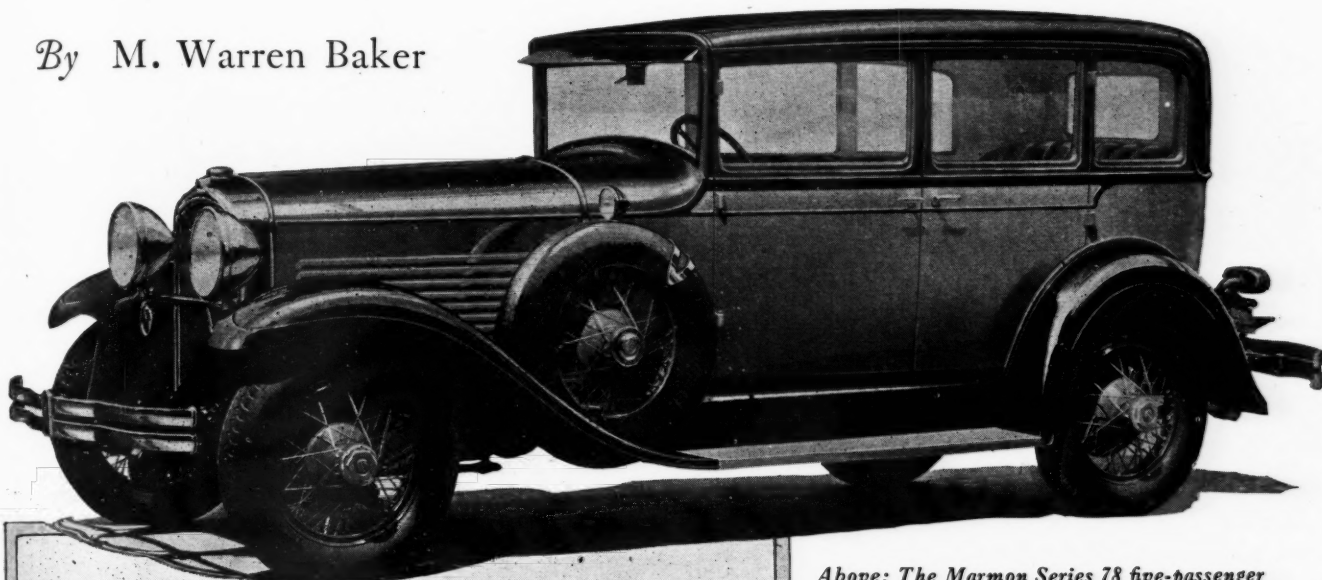
*Above in the panel at right is the new Marmon 68 two-passenger coupe with rumble seat and under it the 68 two-passenger roadster. The former is priced at \$1,465 and the latter at \$1,565. Below: The new Marmon 68 five-passenger sedan, listing at \$1,465*



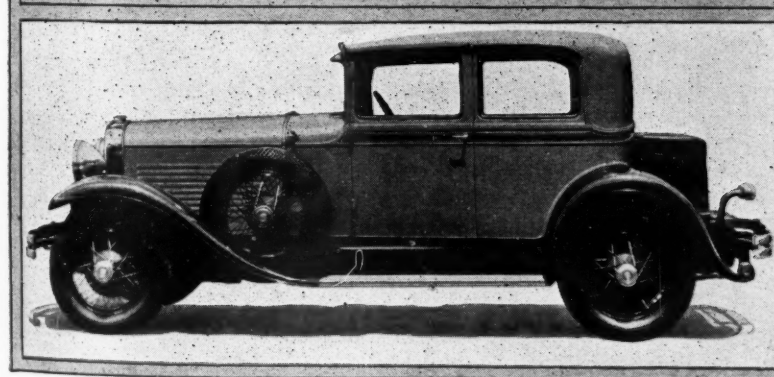
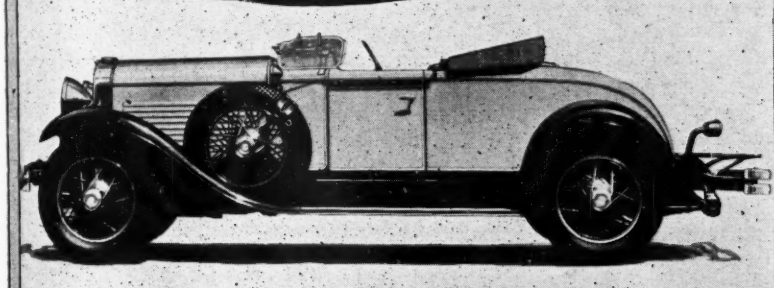


# Power of New Cars

By M. Warren Baker



*Above: The Marmon Series 78 five-passenger sedan, which has a list price of \$1,965. In the upper panel at left is the Marmon 78 two-passenger roadster with rumble seat which is priced at \$1,965, and below it the Series 78 four-passenger Victoria coupe, which, at \$2,065, is the highest priced of the four body models of the Series 78*



The engine of the new Series 68 is of the same straight-eight L-head design that was used in the preceding series, but the bore has been enlarged 1/16 of an inch, increasing the piston displacement by 9 3/10 cu. in. to 211.2. Bore and stroke is now 2 13/16 x 4 1/4 in., giving an S.A.E. horsepower rating of 25.3 and developing an actual horsepower of 76 at 3200 r.p.m.

Shape of the combustion chambers has been changed by redesigning the head to increase the turbulence. The compression ratio of 5.25 to 1 is the same as formerly and a new spark plug is now used.

The cooling system in the 68 has been enlarged to a capacity of 5 gal. through the use of a larger radiator, and has been improved by a volute type of water pump mounted on the front of the cylinder block

and driven by the fan shaft.

In the 78 is used the same straight-eight overhead valve engine as was introduced last year. In both series the duplex down-draft manifold is continued, but its efficiency has been increased by insulating the carburetor from the manifold to prevent vaporization in the carburetor of some of the highly volatile gasolines to be found on the market today.

A specially designed vibration-absorbing clutch, planned by Marmon engineers and manufactured by the Rockford Drilling Machine Co., constitutes one of the principal mechanical changes in the two series. An insulator of high grade rubber is inserted between the driving hub and the plate to eliminate gear chatter and damp out vibrations in the drive line.

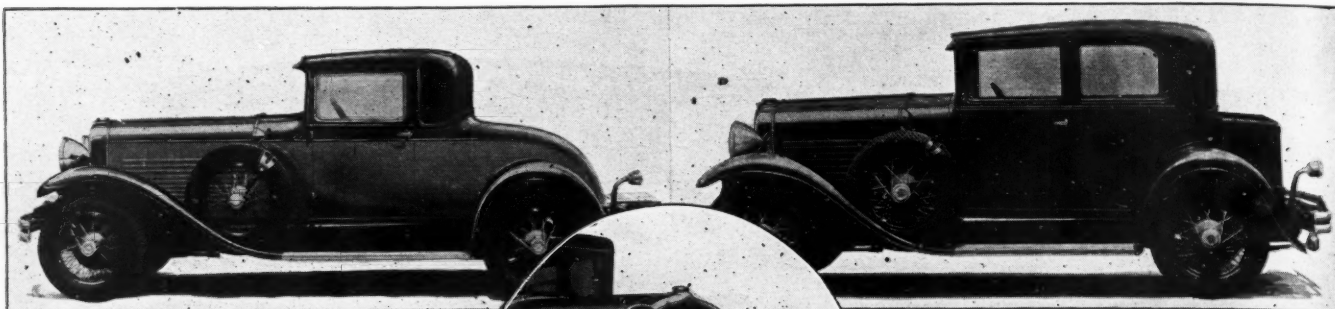
Higher grade bronze-backed, babbitt-lined crankshaft

have been carried out in both lines. Prominent among these are a Blossom type coincidental lock and new instrument panel, which is so designed and lighted as to be read easily from the tonneau. Spring suspension has been refined in both models, principally by dropping the shackling two degrees and one degree on rear and front springs respectively, adding to the riding qualities that were one of the features of the 1928 Series 68 and 78.

Wheelbases of both the new series are continued at 114 and 120 in. for the 68 and 78 respectively. Basic chassis construction of both lines, including the long springs with the ends set in rubber shock insulators rather than steel shackles, is the same, and in the 78 a hypoid differential continues in the rear drive. Hydraulic shock absorbers are engineered into the chassis.



## MARMON INCREASES POWER OF NEW CARS



Above: The Marmon 78 two-passenger coupe which comes with rumble seat, at \$1,965

Above: The Series 68 four-passenger victoria, listing at \$1,520



Left: A frontal view of the 78 five-passenger sedan, showing the new horizontal louvers, new headlamps and bumpers and the "M" ornaments on the tie rod beneath each lamp

bearings are used in the 68 to insure longer life, and larger bearing studs are fitted as an additional safety factor. Timken bearings are used in the differential instead of ball bearings in the 78, and a new type of oil retainer is incorporated in the timing gear cover of the 78.

Rear axle ratio of the roadster models in both lines has been lowered to 4.45 to 1. The ratio on all other models is continued at 4.9 to 1 as in the preceding series.

In addition to the new hood louvers, larger radiator, more massive hood and new headlights, a number of additional exterior refinements are to be noted. Chromium-plated piano hinges are now used on the hood in the place of the double-concealed hinge used previously. The new hinge extends beyond the rear of the hood and overlaps the cowl band on which are mounted the cowl lights.

An "M" ornament has been placed on the headlamp tie rod beneath each lamp, and the Marmon lightning flash, which was on the radiator of only the 78 last year, this year has been added to the 68. New bumpers are used on both lines, and are fitted with a large oval section on the front on which is mounted a decorative plate with the lightning flash design. The bumpers are larger and are mounted lower to the ground.

Headlamps on the 68 are larger and the mounting has been changed to give an unobstructed view of the radiator with its lightning flash ornament. The Marmon monogram on the radiator is gold-plated in both the new series. The front license plate is mounted on upright bumper brackets instead of on a cross bar between the headlamps.

Three groups of extra equipment are provided on order, including wire wheels, mounting in fender wells, or fender well mounting for wood wheels or rims. Bumpers, shock absorbers and spare tires are factory equipment but are billed at an extra charge.

Body designs, except in the 78 coupe, follow closely those of the two preceding series but interiors have been refined to carry out harmony between the hardware design and upholstery pattern. The Marmon jewel colors, with which the previous series were finished, will be retained in a variety of combinations. Wood

wheels will be painted and striped in harmony.

The new two-passenger 78 coupe follows closely the lines of the sedan. Moldings of somewhat unusual design and low rear quarter construction combine to give the new coupe a low appearance in line with the new hood and bumpers.

The new instrument panels are similar on both cars but on the 78 panel an electric clock has been added. Other instruments are a

90-mile speedometer, ammeter, engine heat indicator and oil gage. All dials are mounted in a row in an etched silver panel and are lighted indirectly by two bulbs. The ignition switch, carburetor control and instrument light switch are included in the group.

A layer of celotex insulating material, with a high thermal resistance, is placed in the dashboard to prevent engine heat from penetrating into the body of the car. This is expected to remove much of the discomfort of hot weather driving.

Where spare tires or wire wheels are mounted forward in fender wells, the front tire carriers in both lines have been redesigned and provided with a theft-proof flush type lock. Additional braces have been placed under the fenders to provide a rigid mounting.

Factory equipment includes Lovejoy shock absorbers, front double-bar bumper, rear double-bar bumperettes, spare rim, vacuum type windshield wiper, side curtains on open cars and door locks and tonneau lights on closed cars. The same de luxe equipment is available on the 78 models as before.

### When Honorable Japanese Dealers Get Together (Continued from page 25)

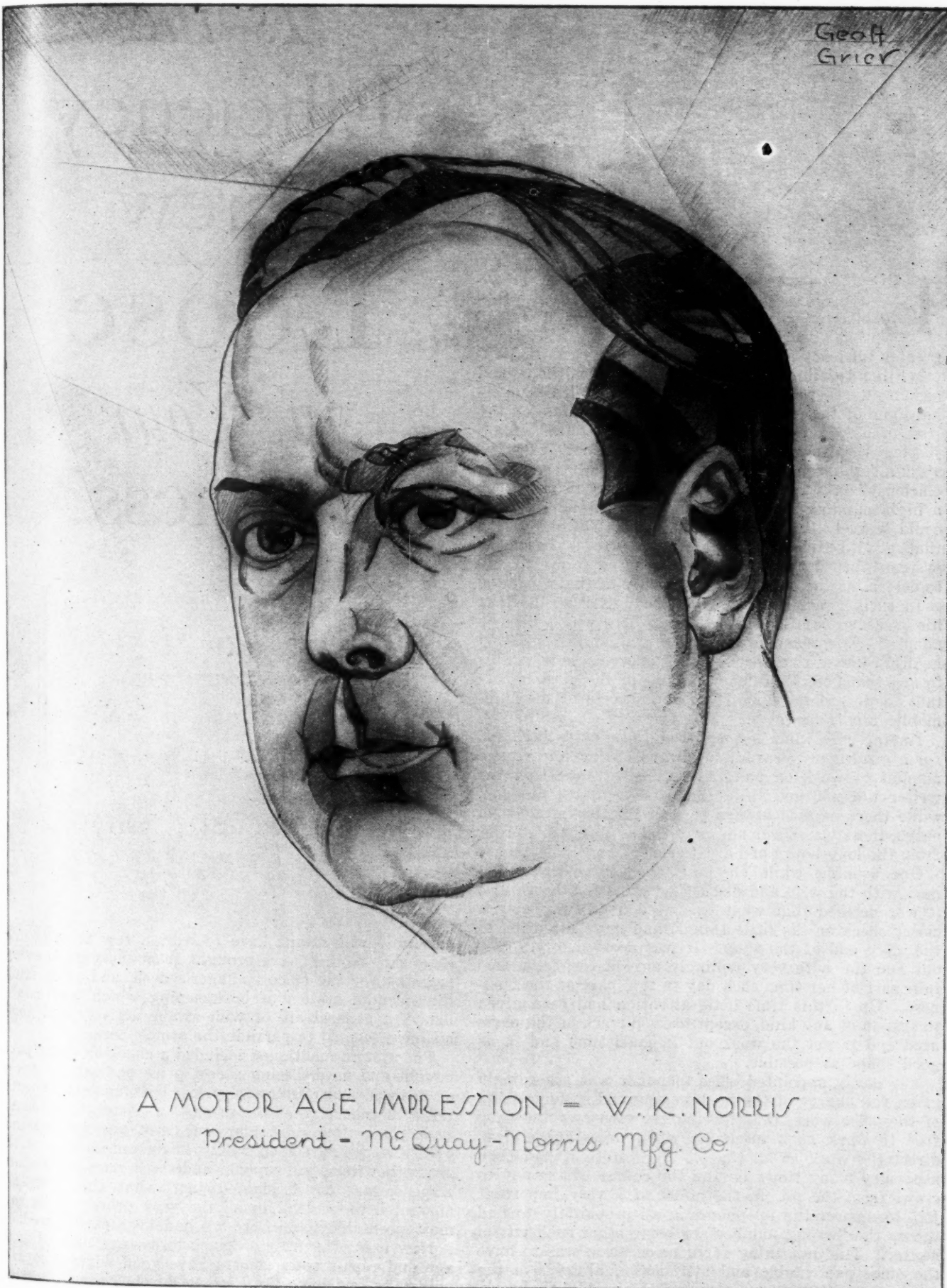
lent, as it had been doing in the U. S.

Then came dinner. The dealers gave a sigh of relief, removed their respective shoes, squatted on cushions in Osaka's best restaurant, and enjoyed grilled Lake Biwa salmon and Geisha attendants. The menu card made no mention of saka.

General Motors Japan Ltd. reports that the dealers followed out the announcement program to the letter. And did business.

### Marmon 68 and 78 New Prices

Model	Series 68	Series 78
Five-passenger sedan .....	\$1,465	\$1,965
Coupe with rumble seat.....	1,465	1,965
Victoria coupe .....	1,520	2,065
Roadster with rumble seat..	1,565	1,965



A MOTOR AGE IMPRESSION - W. K. NORRIS  
President - McQuay-Norris Mfg. Co.





The quarters of  
the E. F. Mc-  
Kinstry Motor  
Co. in Topeka,  
Kan.

LOOKING backward over years of business experience one is often able to see adjustments that have brought about greater efficiency and perhaps on the other hand failures to adjust certain conditions and circumstances that have caused probable losses. Perhaps one of the most noticeable of such failures on the part of garage and repair shop owners is that of adjusting themselves to good office efficiency. To the work-a-day mechanic and the casual observer, "office efficiency" in a repair shop might appear to be rather a high-sounding, far-fetched phrase, one that perhaps could scarcely be proved worth while. Yet one knows that good business of whatever nature is based on system, the methods employed tending very largely to determine the success or the failure of that business.

In such a retrospective view the writer recalls that his most successful business year was one when he adopted system and order into his undertakings, and he also believes that through such experiences he is able to say that "office efficiency" is one of the most important factors in the upbuilding and success of the automobile repair business.

Having been what is considered a first-class mechanic for a good many years, and always having an average amount of work on hand, it seemed strange that the writer did not get ahead financially, that is to say, while there seemed always enough for the income and outgo, there was never any material or noticeable profit from the long hours of hard work.

One evening while checking over the year's business with the wife and discussing plans for the future, it was decided that what was needed was probably a closer check on the little things, and more attention to the office end of the shop. It was decided to try this out and the wife very willingly agreed to give a certain part of her time each day to this part of the business. Up to this time little attention had been given to system of any kind, except to keep track of the parts used and to get the work out in good time and in as good shape as possible.

The newly appointed office manager was accordingly given full charge of the bookkeeping and systematizing of the office work, thus leaving the owner of the shop free to work as a mechanic when necessary and to direct the work at all times. Heretofore it had been necessary many times during the course of the day to crawl from the pit, in the midst of a very important job, to answer the telephone, in all probability to find it was the "wrong number" or some other such trivial matter. The first thing for consideration was to have the office presentable and attractive and to have the necessary equipment to carry out this end of the work. Showcases and windows were cleaned and retrimmed at regular intervals; comfortable chairs were provided

# Is the Efficiency Screw Loose in Your Business?

*A Repair Shop Proprietor Relates How He Worked Himself Out of an Even Break to a Satisfactory Profit*

By E. F. McKinstry

(Proprietor, E. F. McKinstry Motor Co.,  
General Auto Repairing,  
Topeka, Kan.)

for those who might have to wait a few minutes for their car; flowers were brought from the garden every morning for the office manager's desk, and aside from the splendid system of bookkeeping which was established, a general air of wide-awake activity and good business seemed to pervade the atmosphere.

The system mentioned included a check on every part bought and used, listing a cost price and selling price, or dealers' and customers' price, thus enabling one to tell at a glance what his profits on parts amounted to in a given time. In this same way, gas and oil and grease were figured separately, labor and machine work as another item, and supplies and accessories as another. Expense account explained just what the overhead amounted to, and all in all the year proved to be the most profitable financially we had ever experienced.

Now it is of course too much to assume that all garage and repair shop owners have good wives who are willing to and have the time to devote to business details; and indeed it may be presuming too much to suppose that every garage and repair shop owner has a



wife at all—but there is undoubtedly some one who would be grateful and glad for the opportunity and experience to serve in this way. Especially is this true during the summer months when the young folks are free from school duties, and it is of course during such season that the garage and repair shop owner is the busiest and needs most this help. One would not need to put in the whole day at this work, unless the volume of business demanded. Certain hours to take care of and keep up-to-date the office work however seem essential, since the system and order maintained solve half the problem.

There is always some profitable side line that might

*"One evening while checking over the year's business with the wife and discussing plans for the future, it was decided that what was needed was probably a closer check on the little things, and more attention to the office end of the shop. The wife very willingly agreed to give a certain part of her time each day to this part of the business."*

be carried in the way of accessories or supplies, and this might offer an inducement to an outsider to take care of the office work and find an added interest in being given the opportunity to sell whatever line one may secure, dividing the profits. The office manager mentioned herein took on a line of sun shades made by a reliable concern and offering a good margin of profit



## IS THE EFFICIENCY SCREW LOOSE IN YOUR BUSINESS

for the handling. This was in the days when the sun shade was entirely new, and a ready market was found for them once the opportunity came to present the article and offer it for sale. There are likewise numerous and varied lines that all offer reasonable profit for the handling. Agencies for some certain make of springs or shock absorbers, certain piston rings and oils, spark plugs and such things, all offer added business and more avenues for income and profit.

Without presuming to sermonize, the closing paragraphs of this article may be summed up in a few matters of helpful interest, that have been learned through 20 odd years of experience in this line of business.

As one gets established the question comes up in most places for decision as to whether or not one needs to be connected with the local or some other organization tending to protect the interest of dealers, garage and automobile repair men. Needless to say it is beneficial to affiliate one's self in a business way with such local association as may be approved in the community. Therein are found helps in the solution of whatever local problems may arise from time to time. Such association also affords opportunity for friendly cooperation in the upbuilding of community interests as well as avenues for the exchange of helpful ideas and methods. Above all honesty and whole-hearted adherence to the Golden Rule mean much in any business and are especially well worth while in the automobile repair shop. Don't ever give a customer the slightest chance to doubt your word, take pains to do unto him as you would "choose" to be done by, and you will find that he will come to trust you and look to you for advice in matters pertaining to his car, and he will also seek your advice when he comes to make an exchange or is ready to purchase a new car. Give him your honest opinion and then leave him free to make his own decisions. Such practice will do more to build up the

automobile business in general, the repair business included, than all of the "high-powered salesmanship and service" stunts one can pull.

Honesty, perseverance and system will build up and maintain any legitimate business anywhere! Indeed such qualities are the very foundation stones upon which all good business is based. The repair business is no different to other businesses. One is simply selling his service and experience and has a perfect right to expect just returns.

Adherence to such principles as outlined, will enable the shop or garage man to realize that the only "come-back" he can have is the "comeback for more of the same kind of good service." If you have not had the experience and don't always know what is wrong with a car, or what causes certain troubles, and how to remedy them, don't pretend that you do; be honest with yourself and your customer. Old, seasoned and thoroughly experienced mechanics often run into things that have to be worked out. Probably no two troubles will be caused from the same thing or have the same effect, so if you can't locate the trouble right away, don't run a bluff! Be honest and work it out. Your customer will have just as much confidence in and respect for you the next time. On the other hand if you do see quickly what the trouble is, don't run your bluff here either, don't make your customer believe that it is some big something, that will probably cause a lot of work and take some time to repair. In other words, don't make a great "to-do" about nothing, just because your customer doesn't happen to be a mechanic, or know what is wrong.

So, if things in your repair shop are not coming up to your expectations, see if there is a screw loose somewhere, and adjust conditions accordingly, then note the results. The writer ventures to say that you'll be surprised.

### When One Headlight Bulb Burns Out and is Not Replaced, the Other's Life is Shortened

By W. N. Kennon

National Lamp Works of General Electric Company

**H**OW many motorists in the United States have only one eye to see with?

With the use of both of our eyes, our headlamps, we lower the hazards of automobile driving to a minimum, yet while driving a car at night, there are many of us who only have one eye to see with. Last night, while I was driving out on a well traveled but unlighted country road, I checked all the automobiles that passed by. I found that 17 automobiles out of the first 500 that passed by lacked a light in at least one of the three places where lighting is essential on a machine. Seventeen good chances for me to smash up! Perhaps the drivers didn't know that one of their lights was not burning. Maybe they did, and were just taking a chance. But every automobile they approached brought just one more possibility of shortening their lives.

In the days when the wise men sat around and thought up proverbs, one of them decided that a "stitch in time saves nine." Perhaps he wasn't referring to automotive headlighting, but we can readily apply his meaning to that field. Motorists are sometimes an-

noyed by having the bulbs in both headlamps burn out within a few days of each other, the second bulb failing before the first has been replaced. They do not realize that their own negligence in replacing the first bulb probably caused the second to fail. Looking at this from an engineering viewpoint, the cause of the second bulb blowing out is easily understood. When one of your headlights fail, an additional amount of electrical energy is sent to the remaining headlight. Engineers of the National Lamp Works found, after a series of tests on over 50 cars of a dozen popular makes, that an average increase in voltage of 7.5 per cent was placed on the remaining headlight when the first burned out.

To carry an extra supply of auto lamps is often as necessary as a spare tire. It may save the cost of a court fine. It will enable the motorist to do his part in decreasing the number of accidents that occur after the sun goes down. And it is further economical to immediately replace that one burned-out headlight in place of the two that will be required.

# Oldsmobile Adds De Luxe Body Models

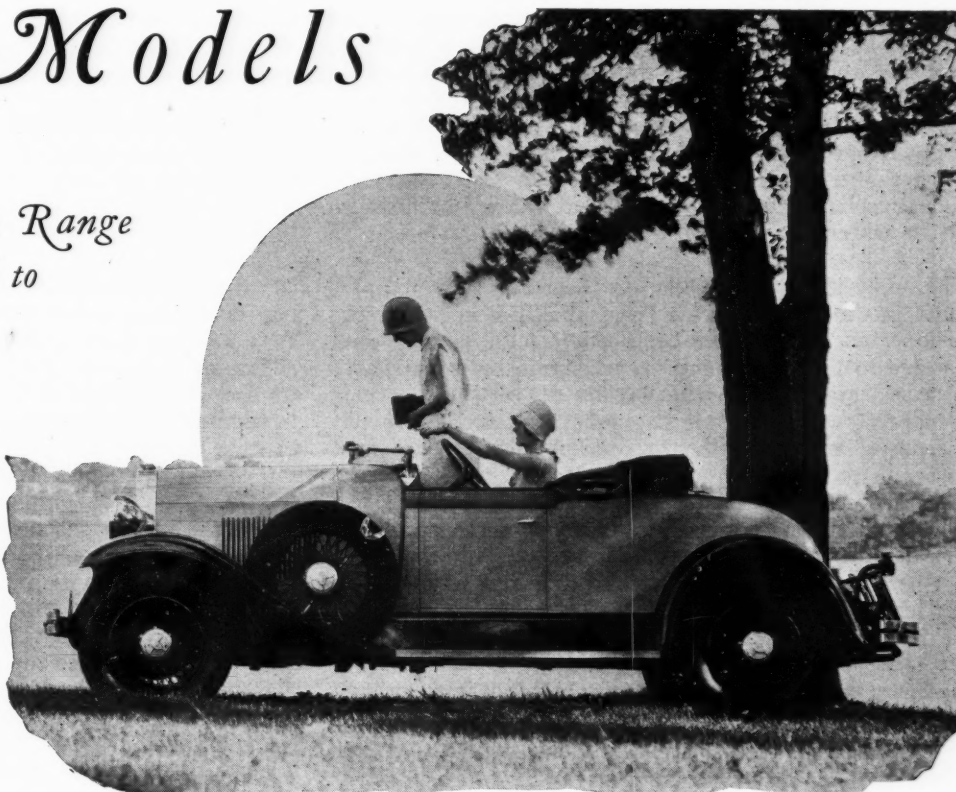
*Prices for the Line Range  
from \$1,145 to  
\$1,235*

OLDSMOBILE'S mid-summer changes consist mainly in the addition of a de luxe line of body models, equipped with fender wheels and six wire wheels. Improved interior finish and new color combinations are a further feature. Tires and tubes for the spare wheels are also included, the spares being held by chromium-plated bar holders which incorporate a lock.

In the landau, four-door sedan and sport coupe, such parts as fenders, step housing, hood sill, front dust shield, rear cross member skirt, and headlamp tie rod are finished in colors to harmonize with body finish. With the removal of the tire carrier from the rear a trunk rack has been substituted. It is of the folding type.

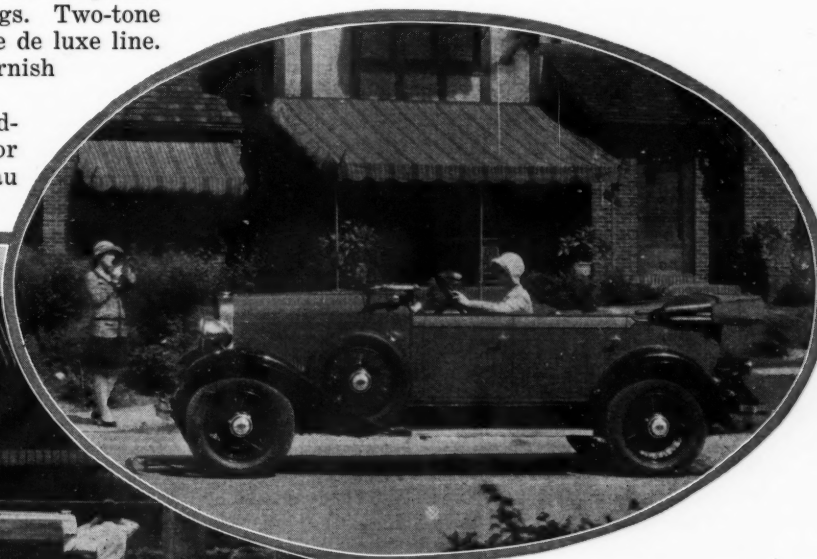
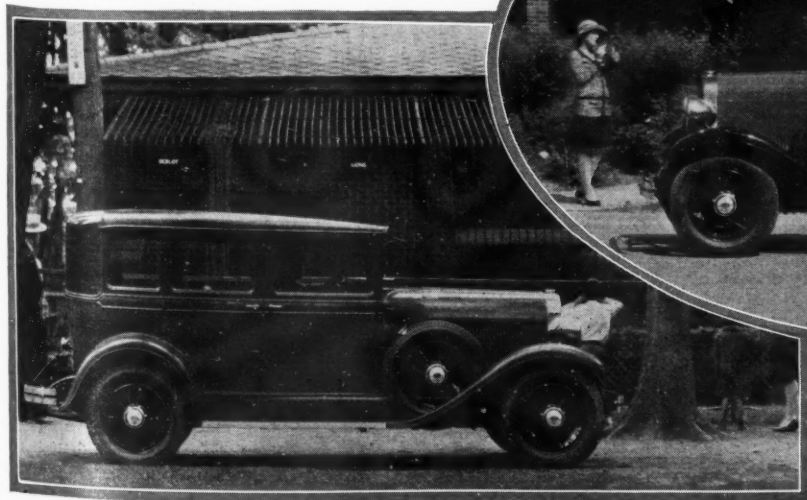
Headlamps on these models are also chrome-plated now. Spring covers encase all four springs. Two-tone upholstery is used in closed models of the de luxe line. On the landau sedan a burlled walnut garnish molding surrounds the instrument panel.

Prices for the de luxe line follow: Roadster, \$1,145; phaeton, \$1,145; four-door sedan, \$1,175; sport coupe, \$1,145; landau



*The Oldsmobile de luxe roadster, which lists at \$1,195*

sedan, \$1,235. These prices are slightly higher than those for the corresponding standard models, but in addition to the equipment and refinements already outlined, the de luxe models have Ducoed fenders, splash aprons, tie rod and gasoline tank cover. On this page three of the de luxe models are illustrated.



*Two new Oldsmobile de luxe models. Above is the phaeton, priced at \$1,145, and at left the four-door sedan, at \$1,175*



# A SHOP WITHOUT A FOREMAN

(Continued from page 21)

he did. He could take just as long on a job as he wanted to, but when it was completed it was worth so much and no more. The rates for the work were figured out according to the average salary of the automobile mechanic and the length of time that certain jobs would take. For instance the grinding of the valves in a six-cylinder Durant takes so much time, a mechanic makes so much per week, a week has in it so many working hours, the grinding of a set of valves is worth so much.

The mechanics were assured that there would be no one to watch them, that they could loaf as much as they liked without being molested.

The only thing in the shop in the way of shop supervision is the quick service foreman. He works in the quick-service shop at the back of the building and goes upstairs to the main shop every day to help distribute the work, and later in the day he makes several trips of inspection to see that the jobs that are going out have been done with the thoroughness that is a first requirement in the shop of the Hammond Motor Co. He is the man who makes sure that the quality of the work is all that it should be and keeps a record of the work done by each mechanic. He knows just what each man had to do and just what he did, and how long it took him to do it. Aside from that he is not accountable for their activities.

It must be emphasized that the quick-service foreman acts merely as a distributor of the jobs and as inspector of completed work, and that he has no direct authority over the men in the matter of firing. He does not, therefore, embody the factor of punishment, which is the big stick wielded by the average foreman. This being so, the guardianship of profitable operation is

completely in the hands of each individual employee.

The plan has worked like a charm. In fact it has accomplished things that the company had not hoped for from it. The management did not expect that it would clear out the men who were slow workers and who were in the habit of loafing on the job, but it did. The slow workers found that they were not making as much as they had on a salary basis, while others were making nearly twice as much. Naturally the plan did not make a hit with them and as soon as they could find work elsewhere they went to it.

The management did not suppose that it would make for fewer disagreements and a more peaceable working day every day, but it did. The mechanics are so busy they have no time even to argue tool ownership.

The management did hope that the plan would speed up the work, and it did. Today a smaller force of men is turning out a greater volume of business and maintaining a better standard of excellence than ever before.

The management did hope that it would do away with the necessity for employing a foreman, and it has. When the shop was on a salary basis the management could no more have thought of giving the men in the shop their work to do and leaving them to do it without having a capable, double-fisted, double-jointed foreman in the shop to watch them and see that they did do it, than they could fly to the moon.

But since the firm left it up to the men to do the best they could for themselves and their families, or not, just as they pleased, it has found that it needs no foreman. The man who is working for himself is usually the happiest and busiest man. Then, too, every man likes to be trusted.

## Contest Results in Sale of Car Every Hour During May and June

**A** CAR an Hour During May and June. They Must Be Good!"

This banner on the sales building of Overland-Knight, Inc., in Buffalo, tells in letters of gold the successful result of its recent \$5,000 price retail selling contest. The company sells Willys-Overlands and Whippets in the Buffalo territory.

The drive began May 1 and closed with the end of June. In that period the company sold and delivered a new car every two hours of each working day. The sale of used cars, incidentally disposed of, brought the record up to a car an hour. The drive was primarily to sell new cars. The company wanted to find out what its force could do in a given period if keyed up to real selling enthusiasm. It found out.

But listen, "you ain't heard nothin' yet," as Al Jolson would say.

This remarkable achievement was accomplished under adverse selling conditions.

The cars disposed of were sold *under water*. Under water is right. They were sold in damp, dampening, and—the salesmen frequently thought—damnable weather. It rained in Buffalo some time during the 24 hours on 22 days during the time the drive was on. Some days it rained all day. On several of the remaining days there were traces of rain. Other days were cold and dark and dreary.

To create a spirit of enthusiasm the company offered bonuses in addition to the regular sales commissions. The bonuses served to get the salesmen into the trenches. There, they were properly primed for their

dash into No-Man's Land. A bonus of \$5 was offered for each Whippet sold and bonuses, ranging from \$10 to \$20, for each Willys-Knight disposed of. It was stipulated that the salesmen must sell 150 Whippets and 75 Willys-Knights, else no bonuses would be paid. They did better than they were asked to do. They sold 158 Whippets and 58 Willys-Knights.

The selling enthusiasm, aroused by the bonus offer, was fanned to white heat by the company's executives. By precept and example they stimulated the men to splendid earnestness. Staff meetings were held every morning. The latest and most approved principles of expert salesmanship were drilled repeatedly into the salesman. "Not that you don't know these things," the driller would say, "but lest ye forget." The drive was discussed as a whole. The individual problems of the salesmen were considered. Salesmen were switched from prospect to prospect. Each possible sale was diagnosed and the remedies it seemed most to need prescribed. The salesmen, who were doing well, were adroitly encouraged; those who seemed to lag were told they were holding the others back.

Those going stronger were encouraged to help their comrades not doing so well. Each of the company's executives in turn was used, at times, in close-ups. Cars were sold under circumstances where attempts to sell ordinarily would not have been made.

At the request of the sales force the campaign was continued through July, with the result that in July up to date (July 25) the company sold 53 Whippets and 39 Willys-Knights.

# Build in Haste and Repent at Leisure

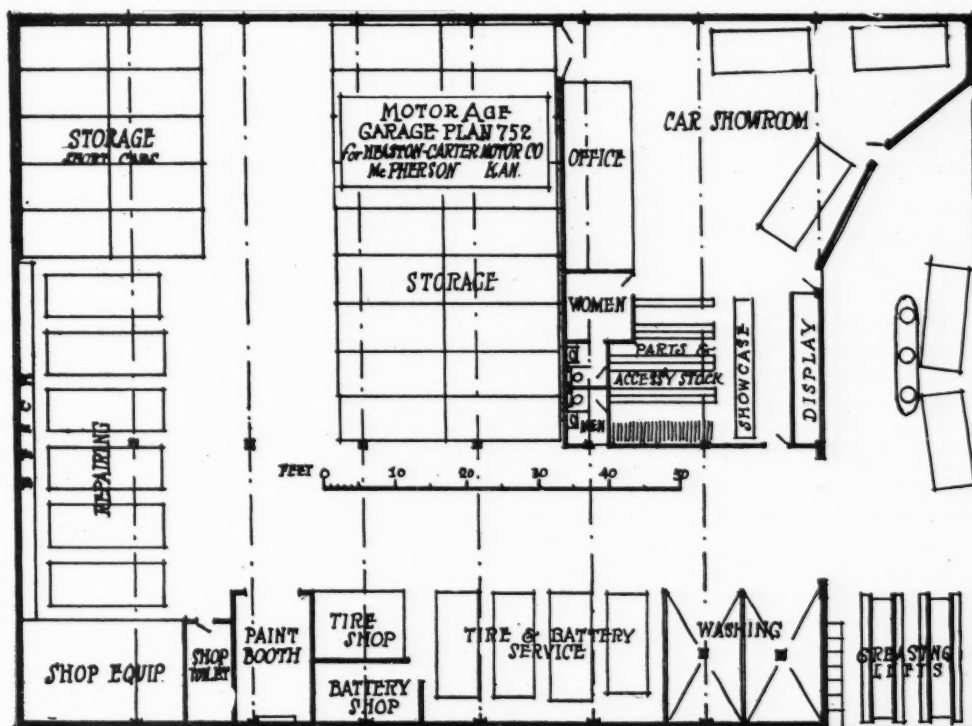
*Many Cases Bear Witness That Building a Garage is the Same as Getting Married in This Respect*

By TOM WILDER

WE are enclosing herewith proposed plans for a new garage building, and would like very much for you to look this over and send us your plans for same, using the one enclosed for an idea as to what we want. Kindly send us plans as soon as possible for we plan to start construction on this within the next few weeks.—Heaston-Carter Motor Co., McPherson, Kansas.

IT would be well to consider this plan pretty carefully before you start construction. About half the automotive buildings now in use were built first and considered afterwards, with the result that they are more or less misfits. We are sending you a pencil layout as near as would be practical to the plan you proposed. The trouble with this is that for one thing the salesroom is altogether too small for cars, parts and accessories and office, to say nothing of waiting room and toilets. For another thing, the width is not great enough to handle in this way and the aisles must be so wide that there is considerable waste space. If the lot were 10 ft. wider it could be worked out pretty well.

Our plan has one bad feature. It has no drive-through, but with the wide aisle there should be no great difficulty. The showroom is large and has good



*Unless you wish to feature washing, it would be an improvement, in our estimation, to move the washracks back next to the paint booth, giving the front position to tire service. They were given this position because of your sketch*

display windows, the storage facilities are considerably greater, and the accessory store is wonderfully well placed in respect to the filling station. There is also plenty of service and repair shop space.

The greasing racks, which should be lifts of some kind rather than pits, have been placed outside, but could be arranged in a double stall with doors to let the

cars in if you prefer them inside. They could be arranged as shown in the summer but during cold weather when there would be less business, one could be moved inside and installed upon one of the washstands.

We have been obliged to guess at the depth of your lot but think from the measurements given different departments on your sketch that it is not far out of the way. Also there is no information as to the surroundings, so we have not indicated windows. Skylights also will be needed in a building this size.



## Useful Shop Equipment

### New Airbrush

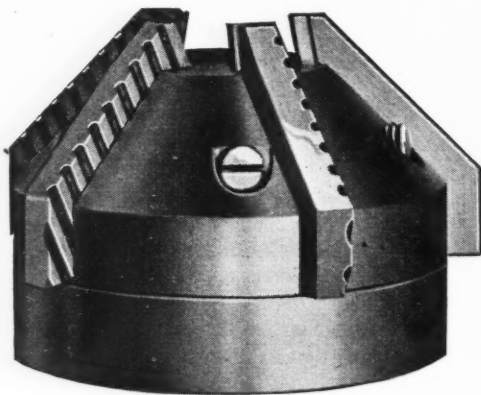
**T**HE Paasche-Lo-Hi pressure feed airbrush is a new development of the Paasche Airbrush Co., 1909-1923 Diversey Parkway, Chicago, Ill. Probably the most interesting feature is the fact this brush will either double air painting capacity or cut air compressor investment in two, as it operates on a lower pressure with less volume than any brush previously introduced. This



brush will work on an air pressure from 6 lb. up, depending entirely on the speed required and the nature of the material used. Prices vary from \$30.65 to \$36.50, depending on the type of cup and type of air cap required. Further details may be had by writing directly to the factory.

### Roughing Reamer

**A** NEW kind of valve seat roughing reamer has been developed by the Foster-Johnson Reamer Co. of Elkhart, Indiana. The F-J roughing reamer shown herewith takes hold quickly, getting under and removing the hard worn surface of the glazed seats which are



so destructive to regular cutting edges of the finishing reamers. Due to the construction of the blade, these ream-

ers can be reground time and again without destroying the roughing action. Also the blades can be renewed at small cost. The F-J 45 deg. roughers and finishers are made in six sizes, ranging from 1 11/16 in. to 2 1/2 in. in diameter. The 15 deg. trimmers and 70 deg. trimmers are made in five sizes ranging from 1 11/16 in. to 2 1/2 in. Standard pilots are furnished which fit all reamers.

### Battery Demonstrator

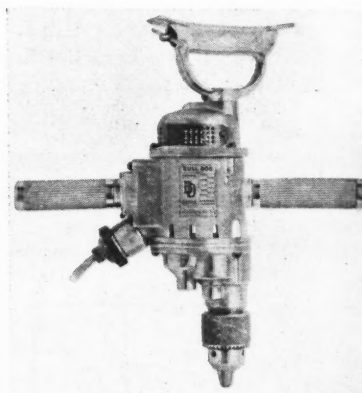
**T**HE Blitz Electric Co., Inc., 4344 Wentworth Ave., Chicago, Ill., is marketing a device known as the Blitz Battery Demonstrator. This company claims its Battery Demonstrator when connected to a battery will demonstrate the action and condition of a battery when in operation in an automobile or radio set, showing the condition of each individual cell in the simplest and most convincing manner. The demonstrator contains three lamps



of which the comparative brilliancy of the lights will indicate the condition of each cell on open circuit or starter load in a manner that any one can understand. The test is accomplished with a control knob for switching to open circuit or load. A single meter with a cell selecting control knob gives the comparative voltage drop on each cell of the device.

### Electric Drills

**T**HE new improved National Silex universal electric drills are designed to combine reliable service with low first cost. It is said that this is the only electric drill with a full year's guarantee. The Bull Dog electric drill, illustrated here, now sells for \$48, the former price having been \$72. This is equipped with an improved plunger



switch, two removable rubber-covered handles, Kant-Break attachment plug and features the Stay-Kool Kant-Stall motor. While this is of standard heavy-duty design, it is of relatively light weight construction. Complete details of the entire line may be had by writing to the National Electric Products Co., 208 Center Street, New York City.

### Chain Hoist

**B**EING finished in a durable blue, the new direct differential hoist manufactured by Chisholm - Moore Hoist Corp., Cleveland, Ohio, is called "Blue Boy." This finish, together with the use of a copper-plated Inswell chain, gives this hoist a particularly attractive appearance. and in harmony with the appearance is the efficiency of this unit. Features of construction include extra heavy load sheaves, malleable iron yokes and drop-forged hook.

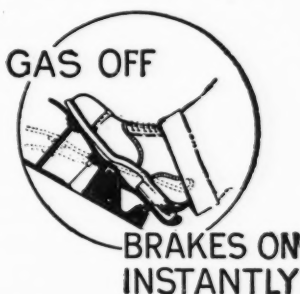


## The Latest in Accessories

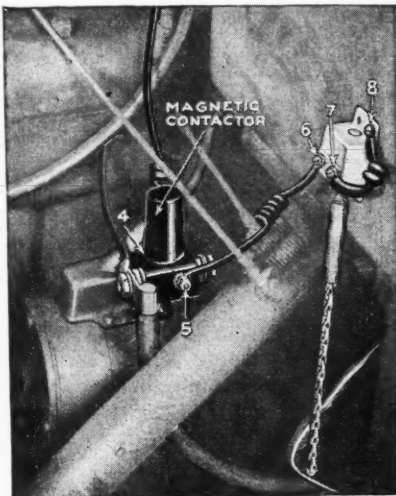
### Starter Control

**A**N automatic starter control that will restart an engine should it die out accidentally, has been put on the market by the Mobilator Corp., 333 N. Michigan Avenue, Chicago, Ill. This new automatic starter control has been designed to fit on all makes and models of cars, having the Bendix type of starter. It consists of only three parts and is easily attached to the present starting system. The magnetic contactor may be attached either to the pres-

anism. The driver's right foot rests on the tilting treadle. As the toe is



pressed down in the usual manner the engine is accelerated. The pedal comes back to its normal position and as the heel is brought down the vacuum of the engine applies the brakes. In other words, it is unnecessary to shift the foot back and forth between the accelerator and the brake pedal when driving the car. It is said that this air brake can be quickly installed on any car. It is made in standard sizes engineered for various car models—a size and capacity for any car or truck built, at list prices ranging from \$25 to \$45. For further particulars, details of operation, prices and trade discounts, address the manufacturers.



ent floor starting button switch, or the starting motor direct, depending on whether the present floor starting button switch is desired left in operation or not. This magnetic contactor is automatically controlled by the engine and operation of the clutch pedal. The vacuum or governor switch which operates from the natural vacuum of the motor is mounted onto the intake manifold or anywhere along the vacuum line by means of a T nipple. This switch automatically controls the magnetic contactor, keeping it from operating the starter when the engine is running. The list price on Mobilator is \$10.

### Brake Control

**A**N entirely new type of brake control has been brought out by the Richmond Air Brake Co., 204 S. First St., Richmond, Ind. This air brake in no way displaces the regular braking equipment of the car. Instead, it merely furnishes a means of applying the brake equipment which is now on the car. The control pedal incorporates both the accelerator and braking mech-

anism. The driver's right foot rests on the tilting treadle. As the toe is pressed down in the usual manner the engine is accelerated. The pedal comes back to its normal position and as the heel is brought down the vacuum of the engine applies the brakes. In other words, it is unnecessary to shift the foot back and forth between the accelerator and the brake pedal when driving the car. It is said that this air brake can be quickly installed on any car. It is made in standard sizes engineered for various car models—a size and capacity for any car or truck built, at list prices ranging from \$25 to \$45. For further particulars, details of operation, prices and trade discounts, address the manufacturers.

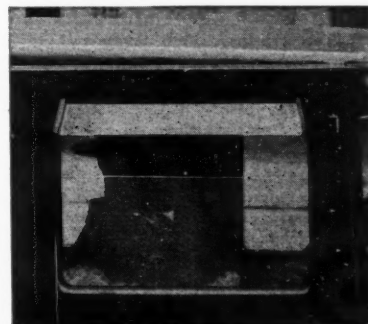


### Cable Stock

**A** COMPLETE service stock of starting cables has been put on the market by the Andrews Mfg. Co., formerly the Western Ignition Co. of St. Louis, Mo. This cable stock is carefully

### Car Ventilators

**F**RESH air without draft and with complete protection from the elements, even on the most stormy day, are the advantages of the Harvey glass ventilators made by the Harvey Spring & Forging Co. of Racine, Wis. These ventilators, as will be seen, mount above the window glass at such an angle that it is possible to leave the windows open a few inches regardless of weather con-



ditions. The use of these ventilators prevents any direct draft and protects car occupants from the ill effects of foul air and the danger of carbon monoxide gases which may leak in from faulty heaters. The installation is most simple as it is unnecessary to drill any holes. The special brackets fit under the glass molding, assuring a permanent installation in the shortest possible time. In clear glass the price is \$4.75 a pair; colored glass may be had at a slight increase over this price.

### Kodaloid

**T**RANSSPARENT sheeting for use in side curtains of automobiles is produced by the Eastman Kodak Co. of Rochester, N. Y., under the name Kodaloid. Kodaloid is made by a continuous process by means of which a sheet of material is formed on a slowly revolving drum of great diameter. This leaves both sides of the sheet with a very high lustre, requiring no polishing of any sort. To this process is attributed the transparency of the product and its exceptional strength and flexibility. At the present time Kodaloid is distributed by automotive jobbers throughout the United States and is supplied in convenient 25, 50 and 100 cartons so packed as to protect the material until used.



# READERS' CLEARING HOUSE

*Questions Answered By C. Edward Packer*

## **Lime Deposit May Be Overheating Cause**

I am having some trouble with a Chevrolet 1925 Model K. It has been heating for six months and no one seems to know where the trouble is. The cylinders have been rebored .020 oversize, all bearings adjusted, valves ground, new pins and rings installed. This was done over one year ago and it ran O.K. for six months. It has been run 5000 miles since this work was done. It can be run 30 miles an hour for 10 miles and the water will boil out. The pump is O.K. and the water circulation is all right. The timing was checked several times and was found to be O.K. The oil pump is working satisfactorily. The head was removed and the valves ground and carbon removed, but this did not help any. The carburetor and valves are adjusted correctly. The engine runs perfectly otherwise. Any information you can give me will be greatly appreciated.—R. E. Brown, Box 795, Wilmington, N. C.

**A**S everything seems to be O.K. mechanically in this car we can only conclude that the radiator core has either been painted or given some heavy external coating, or else it has picked up a lime deposit. It is rather unusual for lime to form in the radiators to any great extent in a car that is only two or three years old, but it is not impossible, especially if the water in your territory has a lot of lime in it. It would probably be well worth your while to try a new radiator, or to have the radiator professionally cleaned out by a radiator man, using a light muriatic solution.

## **Bearing Probably Leaking**

I have a Chrysler 58 in my garage that uses about 1 gal. of oil to 150 miles. It has new rings in it. I have had this car standing idle and it doesn't seem to leak at all. Do you think it might leak through the main bearings?—X-Ray Garage, Wayland, Mich.

**T**HERE is reason to believe that oil is getting away from your rear main bearing even though it does not show when standing idle. We would suggest that you spread newspapers under this car and run the engine at what would be equivalent to a road speed of about 25 miles an hour. Watch closely and you will probably see that oil comes from the rear main bearing. There is no doubt that the amount of leakage will go up rapidly with increasing speed. This rear main bearing should be equipped with an oil return drain pipe which has its lower end submerged in the crankcase. If it does not have this installed you can

get one from any Chrysler dealer. If it is installed, it merely indicates that the rear bearing is extremely loose, or else that the pipe is clogged up.

## **Breaking in Poppet Valve Type Engines**

For a long time I have been puzzled as to the most satisfactory method of breaking in the engines of new cars of the poppet valve type. Many dealers and mechanics recommend adding cylinder oil to the gasoline supply during the first 500 or 1000 miles, in order to assist in lubricating the valves and upper cylinder walls. In my opinion, this method is of no use whatever, and only results in the formation of a large amount of carbon, therefore doing more harm than good, except, of course, in sleeve-valve engines.

A good many engineers agree that a small amount of fuel diluent in the crankcase lubricant will render the latter almost worthless. If this be true, how can a mixture consisting of a quart of cylinder oil, say, to five gallons of gasoline, have any possible lubricating qualities remaining when it reaches the combustion chamber, especially after being atomized in the carburetor?

Another question along this line regards the more or less recent introduction to the trade of various schemes for admitting a mixture of oils into the combustion chambers through the carburetor or intake manifold, the idea being to lubricate the upper cylinder walls and valves. Here again the question of very considerable dilution enters and even though castor oil is introduced, which, it is claimed, will stand much more dilution than a mineral oil, I can hardly conceive that any benefit could be derived through such a method of oiling.—E. N. Layton, 6931 Hood Ave., Huntington Park, Calif.

**P**ROBABLY the most satisfactory way of breaking in a car is to jack up the rear axle and, with the transmission in high gear, run the engine at a speed that would be equivalent to 18 or 20 miles an hour, until the speedometer shows a reading of approximately 500 miles. If time permits, there would be an advantage in running it even farther. As to just how far it should be run depends to some extent on the quality of the car and the manner in which the parts are fitted up. We mention this for the reason that some manufacturers state that it is perfectly practical to operate their cars at relatively high road speed, immediately upon delivery. Most engineers are agreed, however, that careful breaking in is highly advantageous.

With regard to the lubrication during the breaking-in period, we are of the opinion that a little oil in the gasoline is advantageous. What you have evidently lost sight of is the fact that the gasoline is so much more volatile than the oil that immediately upon combustion the gasoline is burned away, leaving an oil deposit to lubricate the cylinder walls and valves. In other words the lubrication is accomplished because the dilution is removed by the heat of combustion.

You will appreciate that an entirely different condition exists in the crankcase. Here we do not have sufficient heat to remove dilution and, if dilution is present, the body of the oil is reduced and the likelihood of direct metal to metal contact developing is increased.

One thing we might point out with

## **To Help You**

When you have trouble you want prompt, accurate information.

Long distance trouble shooting is difficult at best, but almost impossible when full information is not given.

When your problem is on some particular car give engine and body numbers if possible in addition to year car was made. Vital units are sometimes changed without changing the model designation, and only with complete identification can you be sure of receiving a correct answer.

Some cars have used two different makes of electrical units on one model, so on such questions give full name plate reading of the faulty unit.

When describing a knock always mention how it sounds, as well as under what conditions it appears or disappears.

Always sign your letter. No answer will be given otherwise. If you prefer that we keep your name out of the problem when it appears in MOTOR AGE we shall be glad to do so.

This service is freely given to all MOTOR AGE readers.

## [READERS' CLEARING HOUSE]

regard to lubricating through the gasoline is the fact that most two-cycle engines are lubricated in this manner. In fact, we have known of such engines running for years at a time, with no other means of lubrication than the oil supplied through the fuel system. This will indicate to you the interesting possibilities of these devices that are designed to introduce the lubricant through the intake manifold.

Of course, with the four-cycle engine we do not have the intake charge passing through the crankcase, and consequently it is necessary to maintain a separate oil supply in that part of the engine. What we say is not merely a matter of personal opinion, but represents the experience of the engineering departments of most automobile factories, as they are all practically agreed on this matter of breaking in cars.

We will concede, however, that the use of oil in the gasoline does tend to aggravate a carbon formation. However, as valves have had a good chance to become fully set and worked in after 1000 miles or so of operation, it would be desirable to grind them at this time in a new car. Of course, when doing so it is a simple matter to remove the carbon, so we cannot see that any permanent harm comes from this practice. In fact, we feel that the careful following of this procedure would do much to assure trouble-free operation of the car on the road.

### Thin Oil Makes Them Heat

We are having trouble with a Series 11 Franklin car. It has run 8668 miles on the speedometer and the owner complains of overheating. We cleaned the cooling fins around the cylinders and checked the timing and the carburetor. We also checked the valve clearance and gave it a little more than the clearance specified by the factory. We removed a heater installed over the manifold. When the car came to us one could hardly hold his hand on the upper air hood after the engine had been running 10 minutes. It seems to have plenty of snap and good average power on the hills, and will step up to between 55 and 60 miles an hour. After a run of seven or eight miles at 50 to 55 miles an hour, the upper air hood is just nicely warm and you can feel the car hood warm from the manifold heat. This car is strange to us and we do not know just how hot they run in warm weather. Can you suggest anything from what we have told you?—Northern Auto Co., Boyne City, Mich.

**T**HERE is a possibility that the car is running on too thin an oil for this time of year. A very heavy oil is recommended. For the exact grade we would suggest that you refer to the chart of recommendations at any reliable oil company. There are about four outstanding things that can make the

car heat, and these include the use of the incorrect oil, running on retarded spark, operating with the cooling fins clogged, or with a mixture too lean or too rich. Of course, there are other things but these are the most common.

### Peculiar Brake Action

A few days ago a Reo Wolverine coach came in our shop to have the brakes adjusted. The brakes would stop the car but when they were applied caused it to wheel sharply to the right. We adjusted each brake at the wheel as instructed in the catalog and checked each one to the same adjustment with our gage. When we tried the car we found there was no resistance to the pedal which now went to the floor boards. We found it necessary to change the pedal adjustment at the brake chamber before the brake would hold. After this and without changing the adjustment at the wheel, the brakes worked satisfactorily. We do not understand why the brakes suddenly lost their pressure and would thank you for any explanation you can give and for any information you can give us about this braking system.—W. V. White, Joyner Motor Co., Roanoke Rapids, N. C.

**A**S this peculiar action was probably caused by some condition within the master cylinder, we are showing a cross-sectional view of this master cylinder, which is of the compensating variety. Of course the matter of pulling to the right was, no doubt, caused by improper adjustment at the wheel. However, the pedal going to the floor board was probably due to some fault within the master cylinder. A little explanation of this cylinder will help you to understand what might have caused this trouble.

The compensator combines the function of the master cylinder and supply tank and in addition it maintains automatically the operating fluid at a constant volume. It compensates for expansion and contraction of fluid, due to temperature changes and for any loss of fluid which might result from seepage. The master cylinder is contained within the supply tank, upon which are mounted the clutch and brake pedals. The supply tank in turn is

mounted to the frame of the car. It serves to carry the supply of fluid and protects the master cylinder submerged in the fluid from any danger of taking in air, dirt or water.

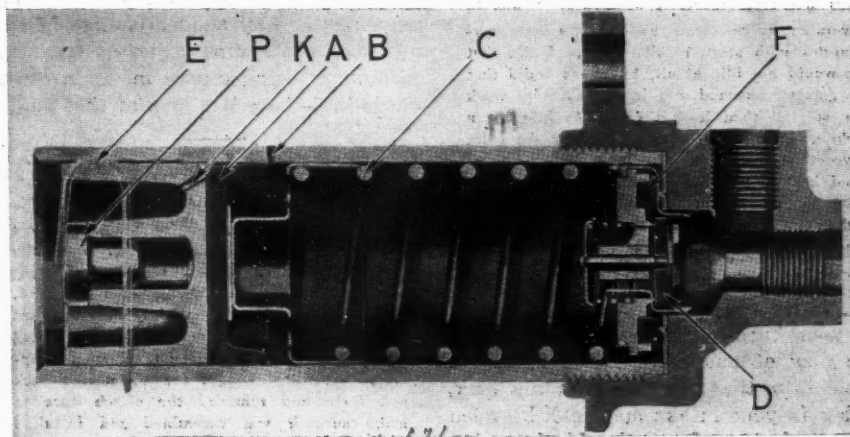
The valve assembly indicated by F and D in the bottom of the cylinder, plays no part in the braking operation, and even if it were absent this fact would not be known unless bleeding were attempted. It is included to make the bleeding operation simple and quick. The return spring C presses the cup A against the piston. The cup is not fastened to the piston and is self centering.

One possible cause of your trouble might be that the hole B has become temporarily clogged. This would prevent the system from filling with fluid as it should and as you made adjustment on the pedal, we have reason to believe that pushing the piston T back and forth may have dislodged the foreign matter that was clogging the hole. Also, the pedal should be adjusted so that it has free play of  $\frac{1}{4}$  to  $\frac{1}{2}$  in. If this play is not present, it is possible that the piston will not uncover the hole B and as a consequence the system will not keep filled with fluid.

Evidently the wheel adjustment so altered the position of the pistons at the wheel that the space in the lines increased with the result that the pedal went entirely to the floor, and this combined with the fact that the compensating cylinder evidently failed to function momentarily caused the trouble that you had.

### Knocking Oil Pump

I have a 1926 Chrysler 30 that always knocks when the engine is first started. This knocking lasts about 15 min. in summer and about 30 min. in winter. This knock is in the oil pump and immediately stops when the connection from the elbow on the vacuum tank to the oil pump is loosened. Will you please tell me the cause of this and how it can be remedied?—J. F. Turner, 12674 Meyers Road, Detroit, Mich.





## [READERS' CLEARING HOUSE]

**T**HE knock results from the plunger acting against too much resistance. This is evidenced from the fact that in warm weather the knock does not last as long as it does in colder weather. You can permanently overcome this by drilling a 1/16 in. relief hole through the center of the plunger at the end of the spring inside of the oil pump. This will by-pass some of the oil and will relieve the knock. After drilling this hole it will be necessary to readjust your oil pressure, for some of the oil will be lost through this hole and your pressure will drop. This method is entirely practical and will overcome your trouble.

### Third Brush Action

We would like to know what there is in a Buick generator or cutout that would make the reading on the ammeter show more at low speed and less at high speed. We don't find anything that does this. Will you kindly explain this?—Clayton Bros. Garage, P. O. Box 244, Eliasville, Tex.

**T**HE action that you refer to is not confined to Buick generators only. It is a perfectly natural phenomenon observed in all third-brush regulated generators. The cutout has nothing whatsoever to do with this action. It is caused by the distortion of the magnetic field. As the armature revolves between the generator pole pieces, the magnetic field, or magnetic flux, between these pole pieces is distorted. This distortion may become so great at high speed that the winding of the armature from which the third brush picks up its current is cutting the field at a place that is relatively weak. As the generator slows down slightly this field becomes more nearly straight from pole to pole and the output may climb until the generator speed becomes very low. As we said before, this is perfectly natural action found in all third-brush generators.

### Possibly an Air Leak

I have a question that I would like to ask in regard to a 1925 Chevrolet. This car will not idle slowly at all times. I put in oversize valve stems and also a new carburetor with some results. Before I did that it would not idle at all, but since I did that it gets streaks and will idle O.K. for a week or so and then it will refuse to idle for a while. Now when it gets these streaks I let everything stay as it was, don't change a thing and in a short time it will work O.K. Will you please give me some information as to what might be causing this?—E. C. Kamm-lade, Matlock Garage, Matlock, Iowa.

**T**HERE is a possibility that there is a little water or foreign matter in your carburetor that is restricting the flow of gasoline. There is also a possibility that you have an air leak, either in your intake manifold, between the manifold and cylinder block, or be-

### Cost of Operating an Automobile

From time to time I have seen figures on the cost per mile of operating various automobiles. With that thought in mind, I would appreciate very much your giving me whatever information you have available as to the cost per mile for operating such cars as Buick, Nash and Studebaker and if possible the difference in cost in operating these cars. That is, the \$1,000 and the \$1,500 classes. I would like to know how depreciation, insurance, interest on investment, gasoline cost, tire cost, washing and storage, and in fact, every item of expense is figured on the basis of so many cents per mile. As a long-standing subscriber for your magazine I have noticed at various times some data on the above. However, I would like more complete information.—E. W. Field, Western Oil Refining Co., Meridian and New York Sts., Indianapolis, Ind.

**Y**OU recognize, of course, that there are many factors outside of the car itself that govern the cost of operation. The nature of the roads over which the cars operate has much to do

with the cost. Probably greater than that, however, is the attention that the car operator gives to lubrication. There is probably no other one factor that so directly affects the cost of operation than lubrication. Another thing to which too little attention is given, is the care of tires. Much can be done to hold down cost by watching inflation and taking care of small cuts before the tire is seriously damaged. Reproduced herewith are figures from Bulletin No. 69 of the Iowa State College showing the cost of operating 11 typical cars ranging in purchase price from \$400 to \$800.

In our opinion these figures are a fair average for cars in all parts of the country; the maintenance figure however appears to be slightly higher than is usual.

	Light Four Touring		Big Four Touring		Medium Six A Touring		Medium Six B Roadster		Medium Six C Roadster	
	Cents Per Mile	Per Cent	Cents Per Mile	Per Cent	Cents Per Mile	Per Cent	Cents Per Mile	Per Cent	Cents Per Mile	Per Cent
Gasoline.....	1.40	19.6	1.70	12.9	1.78	19.3	1.80	15.0	1.74	20.5
Oil.....	.26	.37	.45	3.4	.13	1.4	.38	3.1	.34	4.0
Tires.....	.96	13.7	1.00	7.6	.85	9.2	1.20	10.0	1.23	14.5
Maintenance.....	.85	12.1	.72	5.5	.93	10.1	1.37	11.4	.96	11.3
Depreciation.....	1.62	23.1	4.00	30.4	3.10	33.5	4.40	36.6	3.07	36.1
Interest.....	1.08	15.3	2.13	16.2	.99	10.7	.51	4.3	.52	6.1
Insurance.....	.17	.24	.17	1.3	.50	5.4	.97	8.2	.05	.6
Garage.....	.38	.54	1.80	13.7	.65	7.0	1.00	8.3	.32	3.6
License.....	.33	.47	1.18	9.0	.31	3.4	.38	3.1	.26	3.1
Totals.....	7.05	100.0	13.15	100.0	9.24	100.0	12.01	100.0	8.49	100.0

	Light Four Coupe		Light Four Sedan		Heavy Four Sedan		Light Six Coach		Composite Car	
	Cents Per Mile	Per Cent	Cents Per Mile	Per Cent	Cents Per Mile	Per Cent	Cents Per Mile	Per Cent	Cents Per Mile	Per Cent
Gasoline.....	1.61	16.7	1.47	15.3	1.66	14.5	1.29	11.0	1.61	15.7
Oil.....	.35	3.6	.36	3.7	.38	3.3	.18	1.5	.31	3.0
Tires.....	.55	5.7	.90	9.4	1.00	8.8	1.11	9.5	.98	9.5
Maintenance.....	1.56	16.2	1.88	19.5	1.44	12.6	1.43	12.2	1.24	12.1
Depreciation.....	2.44	25.3	2.93	30.4	4.50	39.5	2.40	20.4	3.16	30.8
Interest.....	1.77	18.3	.70	7.3	.88	7.7	2.62	22.3	1.24	12.1
Insurance.....	.15	1.6	.22	2.3	.10	.9	.50	4.3	.31	3.0
Garage.....	1.05	10.9	.73	7.6	1.04	9.1	.50	4.3	.83	8.1
License.....	.27	2.7	.44	4.5	.41	3.6	1.70	14.5	.59	5.7
Totals.....	9.65	100.0	9.63	100.0	11.41	100.0	11.73	100.0	10.27	100.0

tween the manifold and carburetor. Another place where you may have an intermittent air leak is in the rubber tube connecting the vacuum windshield wiper to the engine. You can check for these leaks by getting the engine idling nicely and then applying a little gasoline over these different surfaces, using an oil can to make the handling convenient. Any sudden change in the action of the engine indicates that the gasoline is being drawn in, or in other words that there is a leak at that point.

### Corks Are Too Thick

We are having trouble with an Essex clutch and come to you for assistance. We have removed the clutch disk, also the clutch housing on account of the pins being worn. All other parts are in good condition. After assembling and installing the clutch we find the gears do not mesh without clashing on account of the clutch not releasing properly. We have changed the adjustment back and forth and removed the clutch once to make sure it was assembled and installed properly. Can you tell us why the clutch

drags?—Click & Stuck, 2819-21 S. Calhoun St., Ft. Wayne, Ind.

**I**N all probability the corks in the replacement plate have not been sheared off quite far enough. That is, the cork plates are too thick and take up all the clearance between the plates, even when the clutch is disengaged. The natural result is that the clutch continues to spin, making it difficult to shift gears. Another, though less likely possibility, is that the small coil springs which assist in separating the plates have been omitted.

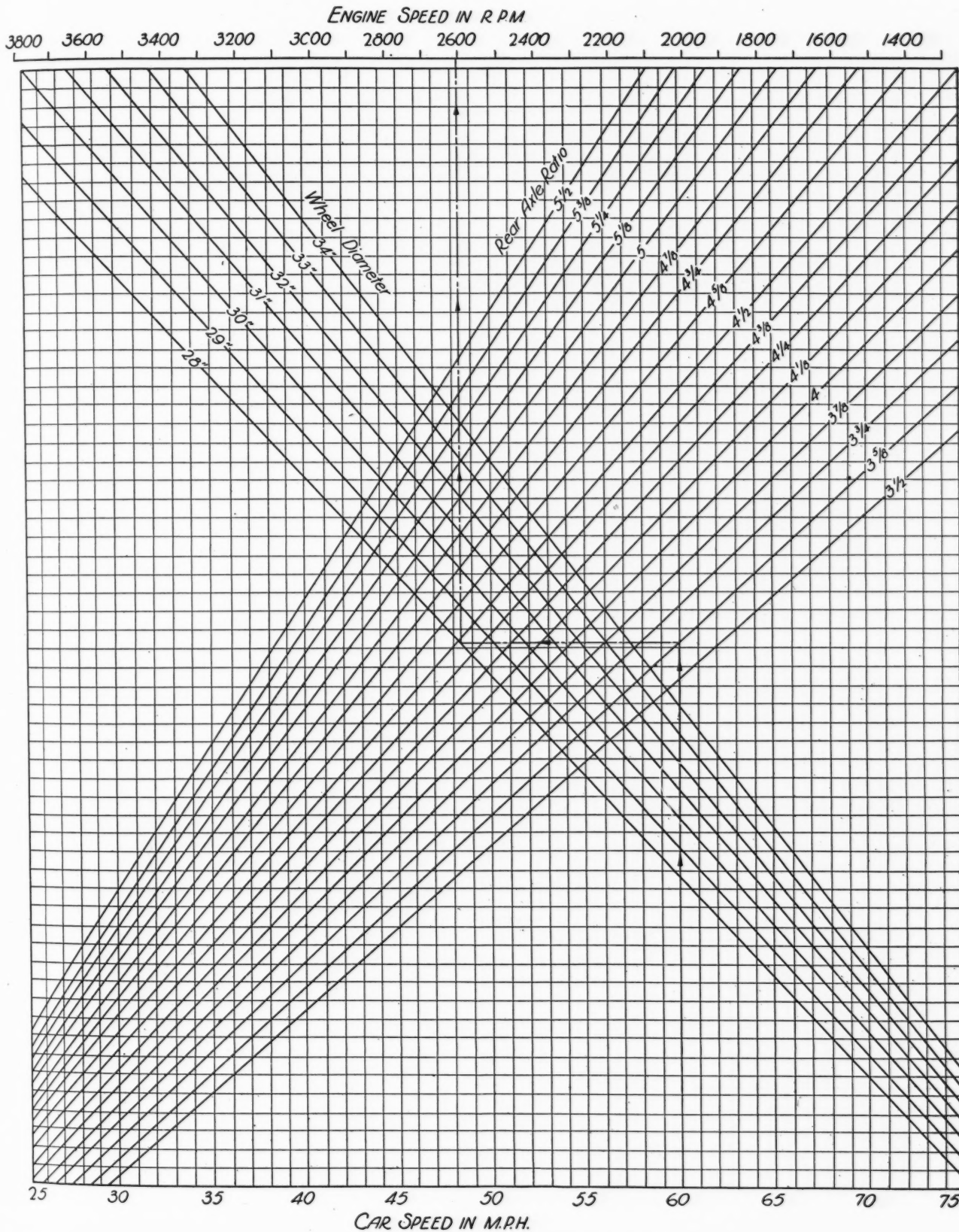
### Engine R.P.M. Chart

We would like to have you publish the formula for finding the speed of a car by knowing the engine r.p.m., gear ratio and tire size, and also the r.p.m. of the engine at certain speeds by knowing the tire size and gear ratio.—D. M. Wilkinson, 1028 W. Grace St., Richmond, Va.

**D**UE to the great number of requests for this kind of information we have decided to put this in chart form, which we are showing on page 41.

## [[ READERS' CLEARING HOUSE ]]

## Engine Speed in Relation to Car Speed



To determine the speed at which the engine turns over when the car is running at any particular speed, locate the car speed on the bottom scale. Proceed vertically upward to the inclined line representing the rear axle ratio, then horizontally or left to the inclined line representing the wheel diameter and then vertically upward to the scale at the top where the engine speed can be read off. To determine the speed at which the car is moving when the engine r.p.m.'s are known, find the engine speed in r.p.m.'s at the top line. Proceed straight down to the diagonal line representing your wheel diameter. Then continue horizontally to the right or left until you intersect the diagonal line representing rear axle ratio. Then proceed straight down to the bottom of the chart where the car speed may be read off.





### *Mexico Thinks We're Best, in All Respects*

**M**ONTERREY, MEXICO—We enclose check for \$3 and kindly extend our subscription to MOTOR AGE for one year. The most interesting features for us are Readers' Clearing House, Useful Shop Equipment and (interesting) studies about service, maintenance, repairing and shop kinks. We have been getting MOTOR AGE and other magazines for a good many years and we say that your publication is the best in all respects.—Gabriel Garza Trevino.

### *There Must Be Dirty Work at the Cross-Roads*

**M**ANSFIELD, OHIO—I do not know if these few lines will be classed as a Purr or Ping, maybe a Grumble and Growl. I do not expect to see myself in some future issue seated at the desk with the bouquet on it or seated behind the harp, but no doubt I might be adorned with the horns and spear. You know I like MOTOR AGE because I have told you so in my other letters, but how can I continue to like



it if I only get it half of the time? June 14 and 28 did not arrive, likewise July 19 and 26. If I am to be a booster and not a knocker, please see that more of the copies reach me.—F. W. Davidson.

### *The Favorite Retains Its Pedestal*

**B**RECKVILLE, OHIO—Having used the Chilton Rapid Flat Rate Price List I find it impossible to conduct business without one. Enclosed find check to cover cost of same and renew

**L**ETTERS to the editor from those whose "attention has been called"; from those who point with pride and those who view with alarm, from those who are easy to please and those who are hard to please; from those who are happy when they find a good thing and those who are happier when they find something they consider not so good; from those who boost and those who knock; from those who see the doughnut and those who see the hole; in other words, Dear Subscriber, from you and you and you—as well as from the man who borrows your copy of MOTOR AGE or reads it over your shoulder.

my subscription for another year of M. A.—my favorite of all trade papers.—H. A. Wayne.

### *Clearing House is a Full House to Him*

**W**ESTWOOD, MASS.—I find the Clearing House the most interesting feature.—Frank Klobucher.

### *And to Peavey*

**H**OUSTON, TEX.—Readers' Clearing House is the most interesting feature of MOTOR AGE to me.—H. D. Peavey.

### *He Doesn't Even Want an Accident to Happen*

**F**ARGO, N. D.—Missed M. A. for 7/12, the first copy I have missed since taking your paper. Cannot afford to miss even a single copy.—W. C. Palmer.

### *He Leaves Us, But With a Compliment*

**W**EST DULUTH, MINN.—Kindly discontinue subscription after expiration of this magazine. Will not have occasion to use your valuable magazine after this date.—George Koruga.

### *Our Treat—And We'll Set 'Em Up Again*

**C**ICERO, ILL.—Attached you will find check for renewal of my subscription for good old MOTOR AGE. Thanks for the reminder, as I do not want to miss any of the numbers. It's a treat each week to get it. It's the only magazine for anyone in the automotive game. I am with the Slager Auto Service & Supply Co. now, and am writing this at home, as I want to get going on the renewal at once.—E. L. Chester.

### *Of Course, Everyone Knows Motor Age*

**O**RD, NEB.—Would you be good enough to forward prices and titles of your trade publications? MOTOR AGE, of course, everyone knows, and that is where I got your address.—John W. Morrison.

### *The Good He Has Derived Has Been Sevenfold*

**J**OHNSTOWN, PA.—I have been a subscriber to the MOTOR AGE for the last seven or more years. It has done me a lot of good. I am mostly in-



terested in the Clearing House and Mechanical Specifications. Congratulations to Mr. E. E. Packer for his good answers.—Frank Hornick.

### *One of Our New Subscribers Speaks a Neat Piece*

**M**ATLOCK, IOWA—I have been receiving your paper for the last month or so and sure like it.—E. C. Kammlade, Jr.

# Prices, Weights and Equipment of Current Passenger Car Models

Important changes in Specifications and Price Tables since last issue:

**MOON**  
Adds  
Vic. Broughams

**PONTIAC**  
Specifications

Passengers and Model	F.O.B. Price	Doors	Net Weight*	Standard Equipment
<b>AUBURN</b>				
"76"				
2-4p. Roadster...	\$1195	3	2980	aeghmnrw
5p. Touring...	1195	4	3070	aeghmnrw
4p. Cabriolet...	1395	2	3125	aeghmru
5p. Sedan...	1295	4	3300	aeghmru
5p. Sedan...	1395	4	3300	aeghmru
"88"				
2-4p. Roadster...	1495	3	3265	aeghmnrw
2p. Speedster...	1695	2	3245	aeghmnrw
5p. Touring...	1495	4	3380	aeghmnrw
4p. Cabriolet...	1695	2	3410	aeghmru
5p. Phaeton Sed...	1895	4	3600	aeghmnr
5p. Sp. Sedan...	1595	4	3590	aeghmru
5p. Sedan...	1695	4	3590	aeghmru
"115"				
2-4p. Roadster...	1995	3	3655	aeghmnrw
2p. Speedster...	2195	2	3590	aeghmnr
5p. Touring...	1995	4	3655	aeghmnrw
7p. Touring...	2195	4	3655	aeghmnrw
2-4p. Cabriolet...	2195	2	3880	Beghjmru
5p. Phaeton Sed...	2395	4	3990	aeghmnr
5p. Sp. Sedan...	2095	4	3995	aeghmpru
5p. Sedan...	2195	4	3995	aeghmpru
7p. Sedan...	2195	4	3995	aeghmpru
<b>BUICK</b>				
"116"				
5p. Phaeton...	\$1225	4	...	ag
2p. Bus. Coupe...	1195	2	...	ag
5p. Sedan 2d...	1220	2	...	agt
5p. Sedan 4d...	1320	4	...	agt
"121"				
4p. Sp. Roadster...	1325	...	...	aghmnr
3p. Bus. Coupe...	1395	...	...	aghmnr
4p. Spec. Coupe...	1450	...	...	aghmnr
5p. C. C. Sedan...	1450	...	...	aghmnt
5p. Sedan...	1520	4	...	aghmnt
"129"				
5p. Phaeton...	1525	4	...	aghmnr
7p. Touring...	1550	...	...	aghmnr
5p. Coupe...	1865	...	...	aghmnr
5p. C. C. Sedan...	1875	...	...	aghmnt
4p. Conv't. Cpe...	1875	...	...	aghmnr
5p. Sedan 4d...	1935	4	...	aghmprnt
7p. Sedan...	2045	4	...	aghmnt
7p. Limousine...	2145	4	...	aghmnt

Passengers and Model	F.O.B. Price	Doors	Net Weight*	Standard Equipment
<b>CADILLAC "341"</b>				
"Fisher"				
2-4p. Roadster...	\$3350	2	4590	aeghlmprx
5p. Phaeton...	3450	4	4640	aeghlmprx
5p. Sp. Phaeton...	3950	4	5125	Beghiklmprx
"Fleetwood"				
7p. Touring...	3450	4	4630	aeghlmprx
2-4p. Coupe...	3295	2	4820	aeghlmprx
2-4p. Conv. Coup...	3495	2	4665	aeghlmprx
5p. Coupe...	3495	2	4760	aeghlmprx
5p. Sedan...	3595	4	4880	aeghlmprx
5p. Town Sedan...	3395	4	4875	aeghlmprx
7p. Sedan...	3695	4	4965	aeghlmprx
5p. Imp. Sedan...	3745	4	4925	aeghlmprx
7p. Imp. Sedan...	3895	4	5025	aeghlmprx
5p. Imperial Cab...	3745	4	4925	aeghlmprx
7p. Imperial Cab...	3895	4	5025	aeghlmprx
<b>CHANDLER</b>				
"65"				
5p. Touring...	\$ 895	4	...	ahmnr
5p. Sportster...	995	2	...	ahmnr
3p. Coupe...	875	2	...	ahmnr
5p. Sedan...	895	4	...	ahmnr
2-4p. Coupe...	955	2	...	ahmnr
5p. DeL. Sedan...	995	4	...	ahmnu
2-4p. Cabriolet...	1075	2	...	ahmnr
"Royal 75"				
5p. Sedan, 2d...	1295	2	...	...
4p. Coupe...	1295	2	...	...
5p. Sedan, 4d...	1395	4	...	...
5p. DeL. Sedan...	1495	4	...	...
"Big Six"				
7p. Touring...	1725	4	3360	ahjlmnrw
5p. Met. Sedan...	1525	4	3800	ahmnr
4p. Coupe...	1725	2	3535	ahmnr
3p. Ctry. Club...	1725	2	3535	ahmnr
5p. Royal Sedan...	1725	4	3800	ahmnr
3-5p. Cabriolet...	1825	2	3450	ahmnr
7p. Sedan...	1925	4	3895	ahmnr
"Berline Sed"				
7p. Touring...	1995	4	3655	ahjlmnrwx
4p. Coupe...	1925	2	3640	ahmnr
4p. Ctry. Club...	1925	2	3640	ahmnr
5p. Sedan...	1795	4	3900	ahmnr
7p. Sedan...	2195	4	3950	ahmnr
3-5p. Cabriolet...	2095	2	3600	ahmnr
5p. DeL. Sedan...	1995	4	4005	Bhilmnr
"Berline Sed"				
4p. Coupe...	2295	...	...	...
<b>CHEVROLET</b>				
"65"				
2p. Roadster...	\$495	2	2030	dr
5p. Touring...	495	4	2090	dr
5p. Coach...	585	2	2360	dhrr
2p. Coupe...	595	2	2235	dhrr
5p. Sedan...	675	4	2435	dhrr
2-4p. Con. Sp. Cab...	695	2	2265	dhrr
5p. Imperial...	715	4	2405	dhrr
<b>CHRYSLER</b>				
"65"				
2-4p. Roadster...	\$1065	2	2730	aghn
5p. Touring...	1075	4	2770	aghn
2p. Bus. Coupe...	1040	2	2780	aghn
5p. Sedan, 2d...	1065	2	2905	aghn
5p. Sedan, 4d...	1145	4	2960	aghn
2-4p. Coupe...	1145	2	2875	aghn
"75"				
2-4p. Roadster...	1555	2	3190	aeghmnr
2-4p. Coupe...	1535	2	3235	aeghmnr
5p. Royal Sedan...	1535	4	3340	aeghmnr
4-5p. Town Sedan...	1655	4	3360	aeghmnr
Imp. "80"				
2-4p. Roadster...	\$2795	3	3870	aeghlmnrwx
5p. Sedan...	2945	4	4125	aeghlmnrwx
7p. Sedan...	3075	4	4250	aeghlmnrwx
5p. Town Sedan...	2995	4	4140	aeghlmnrwx
7p. Sedan Lim...	3495	4	4285	aeghlmnrwx

Passengers and Model	F.O.B. Price	Doors	Net Weight*	Standard Equipment
<b>CUNNINGHAM</b>				
"V-7"				
4p. Sp. Touring...	\$6500	4	4500	Ceghiklmprx
7p. Touring...	7000	4	4600	Ceghiklmprx
4p. Coupe...	8000	2	4700	Ceghiklmprx
6p. Limousine...	8500	4	5000	Ceghiklmprx
<b>DAVIS "99"</b>				
4p. Polo Rdster...	\$1795	2	3295	aeghmnr
5p. Touring...	1795	4	3325	aeghmnr
4p. Coupe...	1865	2	3345	aeghmnr
5p. Emp. Sedan...	1885	4	3475	aeghmnr
<b>DE SOTO</b>				
"65"				
2-4p. Roadster...	\$845	2	...	ghnr
5p. Phaeton...	845	4	...	ghnr
2p. Bus. Coupe...	845	2	...	ghnr
2-4p. Coupe DeLu...	875	2	...	ghnr
5p. Sedan...	835	2	...	ghnr
5p. Sedan...	875	4	...	ghnr
Sed. DeLujo.				
<b>DIANA "St. 8"</b>				
5p. Phaeton...	\$1695	4	3100	agmnr
5p. Roy. Rdster...	1795	2	2995	agmnr
5p. P.B. Rdster...	1895	2	2995	Bgmnr
5p. Cab. Rdster...	2195	2	3160	agmnr
5p. Collap. Rdster...	2195	2	3170	agmnr
5p. 2d. Sedan...	2095	4	3275	agmnr
5p. 4d. Sedan...	2095	4	3275	agmnr
<b>DODGE BROS.</b>				
"Std. 6"				
2-4p. Conv't Cab...	\$945	2	2570	Bghr
2p. Coupe...	875	2	2490	aghr
5p. Sedan...	895	4	2710	aghr
5p. Sedan DeL...	970	4	2780	aghr
5p. Sp. Sed. DeL...	1045	4	...	Beghkr
"Victory 6"				
5p. Touring...	995	4	2775	aghmnr
5p. Sp. Touring...	1245	4	...	Beghikmnr
4p. Sp. Roadster...	1245	2	...	Beghikmnr
2p. Coupe...	1045	2	2650	aghmnr
4p. Coupe DeL...	1170	2	2850	Beghikmnr
5p. Sedan...	1095	4	2755	aghmnr
4p. Brougham...	1095	2	2750	aghmnr
4p. DeL. Bro'm...	1170	2	2850	Beghikmnr
5p. DeL. Sedan...	1170	4	2855	aghmnr
5p. Sp. Sedan...	1295	4	3050	Beghikmnr
"Senior"				
4p. Cab. Rdster...	1595	2	3350	Beghikmnr
4p. Sport Cab...	1720	2	3470	Beghikmnr
2p. Coupe...	1495	2	3230	aghmnr
5p. Sedan...	1595	4	3405	aghmnr
4p. Coupe...	1570	2	3300	aghmnr
5p. Sp. Sed. DeL...	1770	4	3640	Beghikmnr
2p. Sp. Coupe...	1650	2	3400	Beghikmnr
4p. Sp. Coupe...	1725	2	3470	Beghikmnr
<b>du PONT "E"</b>				
4p. Roadster...	\$2800	...	3700	afghikmnr
5p. Touring...	2800	4	3850	afghikmnr
4p. Coupe...	3200	...	3850	afghikmnr
4p. Conv't Coupe...	3400	2	3800	afghikmnr
5p. Sedan...	3400	...	4100	afghikmnr
5p. Con. Sedan...	3750	4	4100	Bfghikmnr
"F"				
... Phaeton...	3950	...	...	...
... Sp. Phaeton...	4500	...	...	...
... Sedan...	4050	...	...	...
5p. Limousine...	4265	...	...	...
7p. Limousine...	4265	...	...	...
... Conv't Sedan...	4775	...	...	...
<b>DURANT</b>				
"Four"				
... Roadster...	\$595	...	1950	ah
... Coupe...	595	...	2185	ah
5p. Sedan...	595	2	2330	ah
5p. Sedan...	695	4	2480	ah
2-4p. Conv. Cab...	...	...	...	ahr

Passengers and Model	F.O.B. Price	Doors	Net Weight*	Standard Equipment
<b>"55"</b>				
2p. Coupe.....	795	2	2395	ah
5p. Sedan.....	795	2	2385	ah
5p. Brougham....	895	4	2425	ah
<b>"65"</b>				
5p. Touring.....	795	4	2385	aghmn
2-4p. Sp. Rdster.....	1025	2	2365	Beghkmn
2-4p. Collap. Cab.....	\$1045	2	2525	aghmn
2-4p. Coupe.....	975	2	2425	aghmn
5p. Sedan.....	975	2	2600	aghmn
5p. Sedan.....	1075	4	2675	aghmn
5p. Brougham....	1175	4	2695	Beghkmn
<b>"75"</b>				
5p. Sedan.....	1385	4	3130	aghmn
5p. Brougham....	1550	4	3180	Beghkmn
<b>ELCAR</b>				
<b>"6-70"</b>				
4p. Roadster....	\$1295	2	2580	ahnr
5-7p. Touring.....	1295	.....	.....	ahnr
5p. Brougham....	1295	2	2670	ahnr
5p. Sedan.....	1295	4	2750	ahnr
<b>"8-78" Std.</b>				
2-4p. Roadster.....	1395	2	.....	ahnr
5p. Touring.....	1395	.....	.....	ahnr
2-4p. Coupe.....	1395	2	.....	ahnr
5p. Sedan.....	1395	4	.....	ahnr
<b>"8-78 Royal"</b>				
4p. Roadster.....	1495	.....	.....	aeghmnr
5p. Touring.....	1495	.....	.....	aeghmnr
4p. Coupe.....	1495	.....	.....	aeghmnr
5p. Sedan.....	1495	.....	.....	aeghmnr
<b>"8-82"</b>				
5-7p. Touring.....	1695	.....	.....	aeghnor
2-4p. Roadster.....	1695	2	.....	aeghmnr
4p. Coupe.....	1695	2	.....	aeghmnr
5p. Std. Sedan.....	1695	4	3490	aeghmnr
5p. Prin. Sedan.....	1895	4	.....	aeghmoprux
<b>"8-91"</b>				
2-4p. Roadster.....	1995	.....	.....	aeghmoprux
4p. Coupe.....	2295	.....	.....	aeghmoprux
5p. Prin. Bro'm.....	2295	4	.....	aeghmoprux
5p. Prin. Sedan.....	2295	4	.....	aeghmoprux
<b>"120"</b>				
5-7p. Touring.....	2465	4	.....	beghnprx
5p. Std. Sedan.....	2465	4	.....	aeghmoprux
7p. Std. Sedan.....	2565	4	.....	aeghmoprux
<b>ERSKINE SIX</b>				
<b>"52"</b>				
5p. Touring.....	\$835	4	.....	aghnr
5p. Club Sedan.....	860	2	.....	aghnr
2p. Cabriolet.....	875	2	.....	aghnr
5p. Sedan.....	945	4	2600	aghnr
4p. Royal Cab.....	995	2	.....	Bghjnr
5p. Royal Sedan.....	1045	4	2600	Bghjlar
<b>ESSEX</b>				
<b>"Super Six"</b>				
5p. Phaeton.....	\$750	4	2305	ahmnr
2-4p. Roadster.....	850	2	2365	ahmnr
2-4p. Coupe.....	775	2	2535	ahmnr
5p. Sedan.....	795	4	2660	ahmnr
5p. Coach.....	735	2	2560	ahmnr
<b>FALCON-KNIGHT</b>				
<b>"12"</b>				
4p. Roadster.....	\$995	2	2450	ghr
5p. Touring.....	995	.....	2700	.....
4p. G.G. Rdster.....	1195	.....	2935	Beghijklmnp
5p. Sedan.....	995	2	2800	ghnr wx
2-4p. Coupe.....	1045	.....	2800	ghnr
5p. Sedan.....	1095	4	2875	ghnr
<b>FORD "A"</b>				
2-4p. Roadster.....	\$385	2	.....	Bghnr
5p. Phaeton.....	395	4	.....	Bghnr
2p. Coupe.....	495	2	.....	Bghnr
5p. Tudor Sedan.....	495	2	.....	Bghnac
2-4p. Spt. Coupe.....	550	2	.....	Bghnr
5p. Fordor Sedan.....	625	4	.....	Bghnr
<b>FRANKLIN</b>				
<b>"Series 12 B"</b>				
<b>119" W.B.</b>				
3p. Coupe.....	\$2625	.....	3450	aeghklmnp



## Prices, Weights and Equipment of Current Passenger Car Models

Passengers and Model	F.O.B. Price	Deers	Net Weight*	Standard Equipment
4-5p. Vic. Bro'm.	\$2760	3550	aeghiklnprx	
5p. Sedan.....	2790	3580	aeghiklnprx	
5p. Ox. Sedan....	2790	3580	aeghiklnprx	
5p. Spt. Sedan....	2910	3630	aeghiklnprx	
3-5p. Conv't Cpe. 128" W.B.	2850	3510	aeghiklnprx	
2-4p. Sp. Runab't.	2975	3440	aeghiklnprx	
5p. Sp. Touring....	2975	3630	aeghiklnprx	
7p. Touring.....	3060	3620	aeghiklnprx	
7p. Sedan.....	2980	3790	aeghiklnprx	
7p. Ox. Sedan....	2980	3790	aeghiklnprx	
7p. Limousine....	3080	3870	aeghiklnprx	
GARDNER				
"75 Std."				
4p. Roadster.....	\$1195	22995	afhmnr	
5p. Sp. Coupe....	1295	23290	afhjmnr	
4p. Vic. Coupe....	1295	23290	afhjmnr	
5p. Club Sedan....	1390	43265	afhmnr	
5p. Std. Sedan....	1495	43330	afhmnr	
"75 Del."				
4p. Roadster.....	1295	22995	aeghmnr	
5p. Sp. Coupe....	1395	23290	aeghjmnr	
4p. Vic. Coupe....	1395	23290	aeghjmnr	
5p. Club Sedan....	1490	43265	aeghmnr	
5p. Del. Sedan....	1595	43400	aeghmnr	
"85"				
4p. Roadster.....	1695	23040	aeghmnr	
5p. Brougham....	1875	43360	aeghjmnr	
5p. Sedan.....	1895	43390	aeghmnr	
...Cus. Coupe....	2095	3350	aeghmnr	
2-4p. Roadster..	2095	3440	aeghmnrpx	
2-4p. Collap. Cpe.	2495	3625	aeghmnrpx	
5p. Brougham....	2275	43750	aeghmnrpx	
5p. Sedan.....	2295	43790	aeghmnrpx	
GRAHAM-PAIGE				
"610"				
2p. Coupe.....	\$860	22625	aghmnr	
5p. Sedan.....	875	42825	aghmnr	
"614"				
4p. Coupe.....	1275	23334	aghmnr	
5p. Sedan.....	1295	43450	aghmnr	
"619"				
4p. Coupe.....	1575	23825	aeghmnrpx	
5p. Sedan.....	1595	43950	aeghmnrpx	
"629"				
5p. Sedan.....	1985	44250	Deghilmnp rtx	
5p. Town Sedan.	2085	44150	Deghilmnp rtx	
7p. Sedan.....	2110	44375	Deghilmnp rtx	
2-4p. Cabriolet..	2185	24140	e	
2-4p. Coupe....	2185	24140	e	
"835"				
5p. Sedan.....	2285	44425	Deghilmnp rtx	
5p. Town Sedan.	2385	44325	Deghilmnp rtx	
7p. Sedan.....	2410	44550	Deghilmnp rtx	
2-4p. Cabriolet..	2485	24270	Deghilmnp rtx	
2-4p. Coupe....	2485	24270	Deghilmnp rtx	
HUDSON				
118" W.B.				
2-4p. Roadster..	\$1295	23355	ahmnr	
2-4p. Coupe....	1295	23525	ahmnr	
5p. Coach.....	1250	23575	ahmnr	
5p. Sedan.....	1325	43645	ahmnr	
127" W.B.				
7p. Phaeton....	1650	43630		
5p. Landau Sed..	1650	43805	aghmr	
5p. Std. Sedan....	1450	43750	aghmr	
4p. Victoria....	1650	23710	aghmr	
7p. Sedan.....	1950	43945	aghmr	
HUPMOBILE				
"Century 6"				
5p. Phaeton....	\$1425	2900	aghn	
2-4p. Sportster..	1435	22820	aghn	
7p. Phaeton....	1455	42955	aghn	
5p. Sedan, 2d....	1345	22975	aghn	
4p. Coupe.....	1385	22965	aghn	
5p. Sedan.....	\$1395	43040	aghn	
2p. Cabriolet..	1435	2820		
2-4p. Cabriolet..	1475	2965	aghn	
"Century 125-8"				
5p. Touring.....	1795	43000	aghnvx	
7p. Touring.....	1895	43360	aghnvx	
2-4p. Roadster..	1895	23350	aghnvx	
5p. Brougham....	2095	23515	aghnvx	
2-4p. Coupe....	2195	23465	aghnvx	
5p. Sedan.....	2195	43545	aghnvx	
5p. Victoria....	2195	23525	aghnvx	
7p. Sedan.....	2345	43360	aghnvx	
7p. Sedan Lim..	2520	43360	aghnvx	
"Century 8"				
5p. Phaeton....	1905	3285	aghmnr	
2-4p. Sportster..	1915	3335	aghmnr	
7p. Phaeton....	1935	3355	aghmnr	
5p. Sedan, 2d....	1825	3285	aghmnr	
4p. Coupe....	1865	3375	aghmnr	
5p. Sedan, 4d....	1875	43455	aghmnr	
2-4p. Cabriolet..	1955	3345	aghmnr	
JORDAN				
"Cross C'ty 6"				
4p. Blue Boy....	\$1495	42800	Beghikmnrx	
4p. Spt. Salon....	1295	22775	agbjmnrx	
2-4p. Tomboy....	1395	22650	agbmnrx	
5p. Sedan.....	1395	42715	agbmnrx	
"J1"				
4p. Playboy....	1845	22915	agbmnrx	
2-4p. Sp. Coupe..	1895	23070	agbmnrx	
5p. Cus. Sedan....	1895	43200	agbmnrx	
4p. Cus. Vict....	1895	23200	aghlmrntx	
"J2"				
4p. Collap. Coupe	1995	23185	agbmnrx	
4p. Perm. Coupe..	1995	23185	agbmnrx	
5p. Victoria....	1995	23275	agbmnrx	
5p. Sedan.....	1995	43300	agbmnrx	
KISSEL				
"6-70"				
4p. Cpe. Roadster	\$1595	2920	ahmr	
5p. Bro'm Sedan.	1495	42915	ahmr	
5p. Victoria....	1595	2990		
5p. Sedan.....	1595	43005		
"8-80"				
125" W.B.				
5p. Phaeton....	1885	43240	ahmnr	
4p. Speedster....	2095	23155	ahmnr	
4p. Cp. Rdstr....	2095	23343	ahmnr	
5p. Spec. Bro'm..	1995	23345	ahmnr	
5p. Bro'm Sedan.	2095	43400	ahmnr	
5p. Conv. Bro'm.	2495	3518	ahmnr	
132" W.B.				
7p. Touring.....	1985	43360	ahmnr	
4p. Tourster....	2095	43155	ahmnr	
5p. Bro'm Sedan.	2295	43455	ahmnr	
7p. Sedan.....	2495	3630	ahmnr	
"8-80S"				
4p. Coupe Rdstr..	1995	3350		
5p. Brougham....	1895	43250		
5p. Sedan.....	1995	43350		
4p. Victoria....	1995	3320		
"8-90"				
131" W.B.				
5p. Phaeton....	2185	43220	ahmnr	
4p. Speedster....	2395	23360	ahmnr	
4p. Cpe. Rdstr..	2395	23578	ahmnr	
5p. Spec. Bro'm..	2295	23671	ahmnr	
5p. Bro'm Sedan.	2395	43760	ahmnr	
5p. Conv. Bro'm.	2795	3863	ahmnr	
139" W.B.				
7p. Touring.....	2285	43630	ahmnr	
5p. Bro'm Sedan.	2595	43755	ahmnr	
7p. Sedan.....	2795	43975	ahmnr	
"White Eagle"				
132" W.B.				
4p. Del. Spdstr..	3275	4020	beghx	
4p. Coupe Rdstr..	3185	4100	beghx	
5p. Del. Victoria.	3185	4100	beghx	
139" W.B.				
4p. Del. Tourster	3275	4000	beghx	
5p. Del. Bro'm..	3275	4360	beghx	
7p. Del. Sedan....	3785	4400	beghvx	
7p. Ber Sed. Del.	3885	4350	beghvx	
LA SALLE				
125" W.B.				
2-4p. Roadster..	\$2485	23755	aeghlmnprx	
5p. Phaeton....	2485	43770	aeghlmnprx	
5p. Sp. Phaeton.	\$2975	44170	Beghikmnp rx	
2p. Bus. Coupe..	2350	3930	aeghlmnprx	
5p. Family Sedan	2350	4090	aeghlmnprx	
2-4p. Coupe....	2450	23965	aeghlmnprx	
2-4p. Conv. Cpe.	2550	23890	aeghlmnprx	
4p. Victoria....	2550	23985	aeghlmnprx	
5p. Town Sedan.	2495	44065	aeghlmnprx	
5p. Sedan.....	2495	44090	aeghlmnprx	
5p. Town Cab....	4500	4....		
5p. Trans. Cab..	4700	4....		
134" W.B.				
7p. Family Sedan.	2575	4345	aeghlmnprx	
5p. Coupe.....	2625	....	aeghlmnprx	
5p. Cab. Sedan..	2675	....	aeghlmnprx	
7p. Sedan.....	2775	44345	aeghlmnprx	
5p. Imp. Sedan..	2775	44315	aeghlmnprx	
7p. Imp. Sedan..	2875	44570	aeghlmnprx	
LINCOLN				
"8"				
2p. Spt. Rdstr..	\$4600	24930	aegklprx	
2-4p. Club Rdstr.	4600	5010	aegklprx	
7p. Spt. Touring.	4600	44940	aegklprx	
4p. Spt. Phaeton.	4600	44910	begklprx	
4p. Coupe.....	4600	24805	aegklprx	
4p. Sedan.....	4800	44930	aegklprx	
5p. Sedan.....	4800	45010	aegklprx	
2p. Coupe.....	5000	4720	aegklprx	
7p. Sedan.....	5000	45050	aegklprx	
7p. Limousine....	5200	45165	aegklprx	
4p. Berline....	5500	5115	aegklprx	
7p. Limousine....	6000	5380	aegklprx	
7p. Brougham....	6500	5025	aegklprx	
6p. Ber. Landau.	6500	5140	aegklprx	
7p. Cabriolet....	6800	5160	aegklprx	
7p. Le Baron Cab.	7000	5200	aegklprx	
7p. Holbrook Cab.	7200	5280	aegklprx	
7p. Collap. Cab.	7300	5140	aegklprx	
LOCOMOBILE				
"8-70"				
5p. Brougham....	\$2100	43525	afghkmnrx	
5p. Sedan.....	2100	43575	afghkmnrx	
4p. Vic. Coupe..	2100	23600	afghkmnrx	
"8-80"				
4p. Spt. Touring.	3300	3972	aeghiklmprx	
4p. Coupe.....	2975	23820	aeghiklmprx	
4p. Collap. Coupe	3000	23780	aeghiklmprx	
5p. Sedan.....	2850	43950	aeghiklmprx	
5p. Brougham....	2900	43990	aeghiklmprx	
7p. Sedan.....	3350	44140	aeghiklmprx	
7p. Sub. Sedan..	3500	44280	aeghiklmprx	
6p. Cabriolet....	6950	....		
"48"				
4p. Sportif.....	\$	45030	afghiklrax	
4p. Roadster....	2	afghiklr		
7p. Touring.....	4	45330	afghiklrax	
7p. Tour. Lim....	4	45640	afghiklrstx	
6p. Brougham....	4	45640	afghiklrstx	
5p. Vic. Sedan..	4	45600	afghiklrstx	
7p. Lim. Enc. Dr.	4	45868	afghiklrstx	
7p. Cabriolet....	4	45824	afghiklrstx	
"90"				
4p. Sportif.....	5900	44475	aeghiklmpr tx	
4p. Roadster....	5900	24370	aeghiklmpr tx	
7p. Touring.....	6000	....	aeghiklmpr tx	
5p. Vic. Sedan..	7300	44842	afghimprtx	
7p. Suburban....	7500	44930	afghimprtx	
4p. Vic. Sedan..	7450	....	aeghiklmpr tx	
7p. Town Bro'm.	7500	44615	afghimprtx	
7p. Cabriolet....	7500	44615	afghimprtx	
...Collap. Cab..	7750	....	aeghiklmpr tx	
McFARLAN				
"Str. 8"				
131" W.B.				
2p. Roadster....	\$3050	23400	afghlmprx	
5p. Touring.....	2650	43400	afghlmprx	
7p. Touring.....	2750	43450	afghlmprx	
4p. Sp. Phaeton.	3180	43200	afghlmprx	
3p. Town Coupe.	3180	23650	afghlmprx	
5p. Sedan.....	3180	43800	afghlmprx	
5p. Brougham....	3180	43650	afghlmprx	
7p. Town Car....	4600	43750	afghlmprx	
136" W.B.				
7p. Sedan.....	3680	44000	afghlmprx	
7p. Sub. Sedan..	3780	44000	afghlmprx	
"TV6"				
2p. Roadster....	\$5800	24300	afghlmprx	
5p. Spt. Tour....	5600	44700	afghlmprx	
7p. Touring.....	5700	44700	afghlmprx	
5p. Sedan.....	6720	45200	afghlmprx	
7p. Sedan.....	6720	45200	afghlmprx	
7p. Sedan.....	6920	45200	afghlmprx	
7p. Town Car....	9000	45200	afghlmprx	
MARMON				
"68"				
2p. Roadster....	\$1495	22700	ahmnrw	
5p. Sedan.....	1395	42897	ahmnr	
4p. Vic. Coupe..	1450	22867	ahmnr	
2p. Coupe.....	1395	22827	ahmnr	
"78"				
2-4p. Roadster..	1895	23007	ahlmnrprx	
4p. Speedster....	1965	43052	ahlmnrprx	
2-4p. Collap. Cpe.	1995	22987	ahlmnrprx	
2-4p. Coupe....	1895	23097	ahlmnrprx	
4p. Vic. Coupe..	1995	23066	ahlmnrprx	
5p. Sedan.....	1895	43104	ahlmnrprx	
"E-75"				
2p. Speedster....	3485	24251	aeghlprx	
4p. Speedster....	3485	24256	aeghlprx	
5p. Phaeton....	3485	44017	aeghlprx	
7p. Tour. Speed..	3565	44480	aeghlprx	
2p. Coupe Rdstr.	3565	24374	aeghlprx	
5p. Town Coupe.	3195	24452	aeghlprx	
2p. Coupe.....	3485	24373	aeghlprx	
4p. Victoria....	3485	24346	aeghlprx	
5p. Brougham....	3565	44525	aeghlprx	
5p. Sedan.....	3565	44498	aeghlprx	
7p. Sedan.....	3640	44620	aeghlprx	
5p. Cus. Sedan..	3960	44515	aeghlprx	
7p. Cus. Sedan..	4075	44678	aeghlprx	
7p. Cus. Limou..	4175	44718	aeghlprx	
MOON "6-60"				
5p. Phaeton....	\$895	42340	an	
3-5p. Roy. Rdstr.	1095	22330	anw	
3-5p. Roy. Cab..	1295	22575	an	
5p. Coach.....	995	22420	an	
5p. Roy. Sedan..	1195	22520	ahin	
5p. Roy. Sedan..	1295	42805	ahn	
"6-72"				
2-4p. Std. Rdstr.	1295	....		
2-4p. Roy. Rdstr.	1395	22630	aghma	
5p. Roy. Cab Rdstr.	1495	22815	aghma	
...Collap. Cab..	1445	....		
5p. Std. Sedan..	1445	4....		
5p. Sedan.....	1445	23050	aghima	
5p. Royal Sedan.	1595	43080	aghima	
4p. Vic. Bro'm..	1695	....		
"8-80"				
2-4p. Cab Rdstr.	2095	....	B	
5p. C.C. Sedan				

\*—Italic figures denote shipping weight.  
 A—Wood wheels with spare.  
 a—Wood wheels.  
 B—Wire wheels with spare.  
 b—Wire wheels.  
 C—Optional wheels with spare.

- c—Type of wheels optional.
- D—Disk wheels with spare.
- d—Disk wheels.
- e—Front and rear bumpers.
- f—Front bumper.
- g—Shock absorbers or snubbers.
- h—Automatic windshield wiper.

### KEY TO SYMBOLS

- i—Trunk and trunk rack.
- j—Trunk rack, no trunk.
- k—Spare tire.
- l—Spare tire lock.
- m—Engine heat indicator.
- n—Dash gasoline gauge.

- o—Car heater.
- p—Cigar lighter.
- r—Rear traffic signal.
- s—Spotlight.
- t—Vanity and smoking set.
- u—Smoking set.

v—Vanity set.  
w—Windshield wings.  
x—Clock.  
†—Overall length.  
\$—Prices on application.

# Prices, Weights and Equipment of Current Passenger Car Models

Passengers and Model	F.O.B. Price	Doors	Net Weight*	Standard Equipment	Passengers and Model	F.O.B. Price	Doors	Net Weight*	Standard Equipment	Passengers and Model	F.O.B. Price	Doors	Net Weight*	Standard Equipment	Passengers and Model	F.O.B. Price	Doors	Net Weight*	Standard Equipment
4p. Sp. Rdster...	\$1075	2	2730	aeghjn	"8-69"					"8-88"					131" W.B.				
2-4p. Cabriolet...	1155	2	2825	aghn	126" W.B.					5p. Tourer.....	\$2495	4	3650	cg	7p. State Tour...	\$2485	4	4125	Bghiklmprx
5p. 2d. Sedan...	1045	2	2890	aghn	5p. Coupe.....	\$2345	3	3905	Deghlmarx	2-4p. Roadster...	2750	2	3540		7p. Sedan.....	2085	4	4120	aghlmpnx
5p. Land. Coupe	1045	2	2890	aghn	133 1/2" W.B.					2p. Speedster...	2985	2	2875		4p. Cabriolet...	2250	2	4030	Bghiklmprx
5p. 4d. Sedan...	1145	4	2980	aghn	2-4p. Roadster...	2245	2	3710	Deghlmarx	5p. Sedan.....	2985	4	3880	cg	5p. State Sedan...	2250	4	4250	Bghiklmprx
5p. Land. Sedan.	1265	4	3050	aeghnu	5p. Sedan.....	2345	4	3875	Deghlmarx	7p. Sedan.....	3285	4	3980	cg	7p. State Sedan...	2350	4	4310	Bghiklmprx
<b>OLDSMOBILE</b>					7p. Limousine...	2645	4	4200	deghlmrtx	<b>ROLLS ROYCE</b>					<b>STUTZ "BB"</b>				
<b>"F-28"</b>					<b>PIERCE-ARROW</b>					<b>"Si. Ghost"</b>					<b>"Custom"</b>				
...Sp. Roadster...	\$995	2	2650	ceghmn	"81"					Open Models...					131" W.B.				
5p. Sp. Touring...	995	2	2640	ceghmn	2p. Runabout...	\$2600	2	3350	afghlmnrx	Closed Models...					2p. Speedster...	\$3495	2	4478	aefghlmprx
2p. Coupe...	925	2	2650	aeghmn	4p. Touring...	2700	4	3365	afghlmnrx	"New Plan"					4p. Speedster...	3595	4	4509	aeghlmpnrx
5p. Sedan, 2d...	925	2	2785	aeghmn	7p. Touring...	3100	4	3500	afghlmnrx	Open Models...					4p. Speedster...	3845	4	4600	aeghlmpnrx
2-4p. Spt. Coupe...	995	2	2680	ceghmn	5p. Club Bro'm...	2475	2	3540	afghlmnrpx	Closed Models...					2p. Black Hawk...	4895	2	4302	beghlmpnrx
5p. Sedan, 4d...	1025	4	2860	aeghmn	2p. Coupe metal...	2650	2	3460	afghlmnrpx					4p. Black Hawk...	4945	2	4302	beghlmpnrx	
5p. Landau Sed...	1085	2	2855	ceghmn	5p. Brougham...	3250	2	3540	afghlmnrpx					2p. Coupe...	3495	2	4449	aeghlmpnrx	
<b>OVERLAND</b>					2p. Coupe leath...	2650	2	3490	afghlmnrpx	<b>STEARNS-KNIGHT</b>					4p. Vic. Coupe...	3495	2	4679	aeghlmpnrx
<b>"4" Whippet</b>					5p. Club Sedan...	3300	4	3635	afghlmnrpx	<b>"6"</b>					5p. Sedan...	3570	4	4977	aeghlmpnrx
5p. Touring...	\$455	4	1985	agr	2-4p. Coupe met...	2750	2	3530	afghlmnrpx	126" W.B.				5p. Brougham...	3570	4	4820	aeghlmpnrx	
2-4p. Roadster...	525	2	1932	agr	5p. Sedan...	2750	4	3605	afghlmnrpx	2-4. Cab. Rdstr...	\$2495	2	2845		2p. Cab. Coupe...	3695	2	4520	aeghlmpnrx
2p. Coupe...	535	2	2060	aghr	2-4p. Coupe lea...	2750	2	3560	afghlmnrpx	5p. C.C. Sedan...	2495	2	2845		7p. Speedster...	3895	4	4748	aeghlmpnrx
2-4p. Coupe Cab...	595	2	2122	aghr	2p. Con't Cpe...	3350	2	3455	afghlmnrpx	5p. Sedan...	2495	2	2845		7p. Sedan...	3895	4	5018	aeghlmpnrx
5p. Coach...	535	2	2160	aghr	5p. Club Land...	3400	4	3640	afghlmnrpx	134" W.B.				7p. Sedan Lim...	3995	4	5159	aeghlmpnrx	
5p. Sedan...	610	4	2210	aghr	7p. Sedan...	2850	4	3700	afghlmnrpx					5p. Collap. Sed...	3995	2	4195	aeghlmpnrx	
<b>"6" Whippet</b>					4p. Coupe...	2950	2	3490	afghlmnrpx	4p. Roadster...	\$3250	2	4252	aeghlmpnr	5p. Collap. Lim...	4095	2	4195	aeghlmpnrx
2-4p. Roadster...	685	2	2228	agr	2-4p. Conv't Cpe...	2950	2	3525	afghlmnrpx	4p. Touring...	3250	4	4322	aeghlmpnr	7p. Collap. Lim...	4195	2	4195	aeghlmpnrx
5p. Touring...	615	4	2238	agr	7p. Enc. Dr. Lim...	2950	4	3755	afghlmnrpx	4p. Cab. Rdstr...	3550	2	4500	aeghlmpnrpx	<b>"Weyman-Cus."</b>				
2-4p. Coupe...	695	2	2356	aghr	5p. Sedan Land...	3550	4	3605	afghlmnrpx	5p. Cus. Sedan...	3350	4	4562	aeghlmpnrpx	131" W.B.				
5p. Coach...	695	2	2423	aghr	7p. Sed. Landau...	3700	4	3700	afghlmnrpx	4p. Coupe...	3450	2	4527	aeghlmpnr	2p. Black Hawk...	4895	2	4302	beghlmpnrpx
5p. Sedan...	770	4	2484	aghr	7p. Enc. Dr. Land...	3800	4	3755	afghlmnrpx	5p. Std. Sedan...	3450	4	4572	aeghlmpnr	5p. Sedan...	4120	2	4393	aeghlmpnrpx
<b>PACKARD</b>					5p. Opera Bro'm...	7000	4	4865	afghlmnrpx	5p. Sedan Lim...	3700	4	4647	aeghlmpnr	4p. Sedan...	4120	2	4393	aeghlmpnrpx
<b>"526"</b>										5p. Cus. Sed. Lim...	3700	4	4637	aeghlmpnr	4p. Coupe...	4120	2	4393	aeghlmpnrpx
4p. Runabout...	\$1975	2	3620	Deghlmpnx	2p. Runabout...	5875	2	4560	afghlrx	7p. Sedan...	3750	4	4702	aeghlmpnr	5p. Landau Sed...	4420	4	4393	aeghlmpnrpx
5p. Phaeton...	1975	4	3665	Deghlmpnx	4p. Touring...	5875	4	4510	afghlrx	7p. Sedan Lim...	3950	4	4777	aeghlmpnr	5p. Sedan...	4495	4	4393	aeghlmpnrpx
5p. Sedan...	1985	4	4000	Deghlmpnrpx	7p. Touring...	5875	4	4585	afghlrx					5p. Sedan...	4545	4	4393	aeghlmpnrpx	
2-4p. Coupe...	2050	2	3950		7p. Sedan...	5875	4	4815	afghlrx					7p. Sedan...	4745	4	4393	aeghlmpnrpx	
4p. Conv't Cpe...	2125	2	3875		3p. Lim. Encl...	5875	4	4870	afghlrx					7p. Limousine...	4995	4	4778	aeghlmpnrpx	
<b>"533"</b>					3p. Coupe...	6375	2	4760	afghlrx					7p. Landau Lim...	5295	4	4393	aeghlmpnrpx	
5p. Phaeton...	2085	4	3745		4p. Cpe. Sedan...	6375	2	4795	afghlrx					5p. PW Sedan...	6345	4	4393	aeghlmpnrpx	
4p. Runabout...	2085	2	3700		4p. Sedan...	6375	4	4830	afghlrx					7p. PW Sedan...	6345	4	5014	aeghlmpnrpx	
7p. Touring...	2185	4	3865	Deghlmpnrpx	7p. Enc. Dr. Lan...	6000	4	4895	afghlrx					7p. Con. T'n Car	6895	4	5044	aeghlmpnrpx	
4p. Coupe...	2385	2	4000	deghint	7p. Sedan Land...	6000	4	4840	afghlrx										
5p. Club Sedan	2385	4	4085	Deghlmpnrpx	4p. Lim. Encl...	6375	4	4880	afghlrx										
7p. Sedan...	2385	4	4145	Deghlmpnrpx	5p. C. C. Sedan...	6475	4	4805	afghlrx										
7p. Sedan Lim...	2485	4	4205	Deghlmpnrpx	2p. Coupe...	6600	2	4745	afghlrx										
<b>"443"</b>					4p. Sedan Land...	6600	4	4800	afghlrx										
4p. Runabout...	3875	2	4350	Djk	4p. Enc. Dr. Land...	6600	4	4880	afghlrx										
5p. Phaeton...	3875	4	4370	Djk	7p. Fr. Limou...	7500	4	4740	afghlrx										
7p. Touring...	3975	4	4410	Deghlmpnr	7p. Fr. Landau...	8000	4	4865	afghlrx										
<b>"Std. 8"</b>					<b>PLYMOUTH</b>					<b>"H"</b>					<b>VELIE "Std. 50"</b>				
7p. Touring...	3550	4	4		2-4p. Roadster...	\$670	4	2160	ah	4p. Roadster...	5500	4	4872	afghmnpwrpx	5p. Touring...	\$995	2	2525	aeghmnr
5p. Phaeton...	3650	4	4		5p. Touring...	695	4	2255	ah	4p. Cabriolet...	5600	2	4872	afghmnpwrpx	5p. Sedan...	1115	2	3020	aeghmnr
2p. Coupe...	3550	2	4		2p. Coupe...	670	2	2295	ah	2p. Coupe...	5500	2	4942	afghmnpwrpx	5p. Coupe...	1165	2	2953	aeghmnr
4p. Conv't Coupe	3650	2	4		5p. Sedan, 2d...	690	2	2435	ah	5p. Sedan...	5500	4	4942	afghmnpwrpx	5p. Sedan...	1165	4	3076	aeghmnr
4p. Coupe...	3750	2	4		2-4p. DeL. Coupe	720	2	2435	ah						5p. Metro Sedan	1195	2	3090	aeghmnr
5p. Club Sedan...	3750	4	4		5p. Sedan, 4d...	725	4	2460	ah						5p. Metro Sedan	1265	2	3100	aeghmnr
7p. Sedan...	4450	4	4820	Deghlmpnr	<b>PONTIAC "6"</b>					7p. Town Cab...	5800	4	5217	afghmnpwrpx	2-4p. Metro Cpe.	1265	2	4980	aeghmnr
7p. Sedan Lim...	4550	4	4860	Deghlmpnr	2-4p. Roadster...	\$745	2	2270	ahn						5p. Spec. Sedan...	1585	4	3300	aeghmnr
<b>"Std. 8"</b>					5p. Sp. Phaeton...	775	4	2435	ahn						5p. Royal Sedan...	1635	4	3310	aeghmnr
7p. Touring...	3550	4	4		2p. Coupe...	745	2	2435	ahn						5p. Coupe...	1635	2	3230	aeghmnr
5p. Phaeton...	3650	4	4		5p. 2d. Sedan...	745	2	2520	ahn						5p. Club Phaeton	3170	4	3170	aeghmnr
2p. Coupe...	3550	2	4		4p. Sport Cab...	795	2	2455	aehn						5p. Spec. Sedan...	2095	4	3485	aeghmnr
4p. Conv't Coupe	3650	2	4		5p. Sp. Sedan...	825	4	2595	ahn						5p. Royal Sedan...	2095	4	3520	aeghmnr
4p. Coupe...	3750	2	4		5p. Sp. Landau...	875	4	2640	aehn										
5p. Club Sedan...	3750	4	4		<b>REO</b>					7p. Sedan...	4750	4	5027	aeghlmpnr					
7p. Sedan Lim...	3850	4	4		<b>"Flying Cloud"</b>					5p. Sedan Lim...	4850	4	5009	aeghlmpnr					
<b>PEERLESS</b>					<b>"Flying Cloud"</b>					7p. Limousine...	5250	4	5102	aeghlmpnr	<b>WILLIS-KNIGHT</b>				
<b>"6-60"</b>					2-4p. Roadster...	\$1685	2	2	aeghmnr	<b>"Dictator"</b>					<b>"Std. 6"</b>				
2-4p. Roadster...	\$1195	2	2635	ceghlmnrw	5p. Brougham...	1645	2	3535	aeghmnr	5p. Touring...	\$1265	4	4	aghlmnr	2-4p. Roadster...	\$995	2	4	aghr
5p. Phaeton...	1195	4	2635	ceghlmnrw	2p. Sp. Coupe...	1625	2	3445	aeghmnr	7p. Touring...	1325	4	4	aghlmnr	5p. Touring...	995	4	4	aghr
2-4p. Coupe...	1295	4	2775	ceghlmnr	4p. Victoria...	1795	2	3550	aeghmnr	5p. Club Sedan...	1185	2	4	aghlmnr	2-4p. Coupe...	1045	2	2507	aghr
5p. Brougham...	1195	4	2850	ceghlmnr	5p. Sedan...	1845	4	3645	aeghmnr	5p. Sedan...	1265	4	3280	aghlmnr	5p. Coach...	995	2	2816	aghr
5p. Sedan...	1195	2	2780	ceghlmnr	5p. Del. Sedan...	1995	4	3645	aeghmnr	2p. Bus. Coupe...	1265	2	4	aghlmnr	5p. Sedan...	1095	4	2858	aghr
5p. Sedan...	1295	4	2905	ceghlmnr	<b>"Wolverine"</b>					4p. Victoria...	1345	2	4	aghlmnr	2-4p. Roadster...	1850	2	3486	aghmnr
<b>"6-80"</b>					4p. Cabriolet...	1195	2	2850	aeghmnr						5p. Touring...	1850	4	3675	aghmnr
5p. Phaeton...	1295	4	2975	ceghlmnrw	5p. Brougham...	1195	2	2930	aeghmnr	4p. Royal Cab...	1395	2	4	Bghilmnr	2-4p. Cab Coupe	1995	2	3726	aghmnr
2-4p. Roadster...	1295	2	2975	ceghlmnrw	5p. Sedan...	1295	4	3090	aeghmnr	5p. Royal Sedan...	1395	4	3415	Bghilmnr	4p. Foursome Sed...	2195	4	4012	aghmnr
2-4p. Coupe...	1395	2	3100	ceghlmnr	<b>ROAMER</b>									5p. Sedan...	1995	4			



# Mechanical Specifications of Current Passenger Car Models

This list comprises current cars distributed on a national basis only. Data for previous models back to 1920 will be found in the Chilton Catalog and Directory

This list comprises current cars distributed on a franchise basis																																
MAKE AND MODEL	Wheel Base (Inches)	Tire Size	Model	Bore and Stroke	Rated H.P.	Piston Displacement	Valve Arrangement	Maximum Brake Horsepower at 3000 R.P.M.	Compression Ratio	Camshaft Drive	Piston Material	Crankshaft Vibration Damper	Oiling System	Oil Cleaner?	Radiator Shutters	Carburetor	Air Cleaner?	ELECTRICAL SYSTEM				Clutch—Type and Make	Gear Set—Make	Universal—Type and Make	REAR AXLE		BRAKES		Steering Gear—Type and Make	Rear Spring—Type and Length	Chassis Lubrication—	ABBREVIATIONS— NAMES OF MFRS. OF STOCK PARTS
																		Generator and Starter Make	Ignition System	Make	Carburetor				Type and Make	Hand—Type and Location	4-Wheel Type					
Auburn	76	28x5.25	Lyc.	6-27x3 1/2	19.8	185	L	115-3200	5.05	Ch.	Al.	4	PG	N	N	N	N	N	D-R	D-R	D-R	D-R	D	War	m-U-P	Col.	4.9	I-F	I-F	Ros	Bi	A-Bos
Auburn	88	30x6.00	Lyc.	6-27x3 1/2	26.8	247	L	115-3200	5.15	Ch.	Al.	4	PG	N	N	N	N	N	D-R	D-R	D-R	D-R	D	War	m-U-P	Col.	4.9	I-F	I-F	Ros	Bi	A-K
Auburn	115	30x6.00	Lyc.	6-27x3 1/2	26.8	247	L	115-3200	5.35	Ch.	Al.	4	PG	N	N	N	N	N	D-R	D-R	D-R	D-R	D	War	m-U-P	Col.	4.9	I-F	I-F	Ros	Bi	A-L
Buick	111	30x5.50	Own	6-31x4 1/2	26.8	239	L	91-2800	4.36	He.	Al.	4	PG	N	N	N	N	N	D-R	D-R	D-R	D-R	D	War	m-U-P	Col.	4.9	I-F	I-F	Ros	Bi	A-M
Buick	121 & 129	30x5.50	Own	6-31x4 1/2	26.8	239	L	91-2800	4.50	He.	Al.	4	PG	N	N	N	N	N	D-R	D-R	D-R	D-R	D	War	m-U-P	Col.	4.9	I-F	I-F	Ros	Bi	A-N
Cadillac	124	32x6.75	Own	6-31x4 1/2	26.8	239	L	90-3000	4.90	Ch.	Al.	4	PG	N	N	N	N	N	D-R	D-R	D-R	D-R	D	War	m-U-P	Col.	4.9	I-F	I-F	Ros	Bi	Ba
Chandler	65	30x5.50	Own	6-31x4 1/2	26.8	239	L	85-2600	5.0	Ch.	Al.	4	PG	N	N	N	N	N	D-R	D-R	D-R	D-R	D	War	m-U-P	Col.	4.9	I-F	I-F	Ros	Bi	Ba
Chandler	75	30x5.50	Own	6-31x4 1/2	26.8	239	L	85-2600	5.0	Ch.	Al.	4	PG	N	N	N	N	N	D-R	D-R	D-R	D-R	D	War	m-U-P	Col.	4.9	I-F	I-F	Ros	Bi	Ba
Chandler	85	30x5.50	Own	6-31x4 1/2	26.8	239	L	85-2600	5.0	Ch.	Al.	4	PG	N	N	N	N	N	D-R	D-R	D-R	D-R	D	War	m-U-P	Col.	4.9	I-F	I-F	Ros	Bi	Ba
Chandler	95	30x5.50	Own	6-31x4 1/2	26.8	239	L	85-2600	5.0	Ch.	Al.	4	PG	N	N	N	N	N	D-R	D-R	D-R	D-R	D	War	m-U-P	Col.	4.9	I-F	I-F	Ros	Bi	Ba
Chrysler	65	30x5.50	Own	6-31x4 1/2	26.8	239	L	75-3200	5.2	Ch.	Al.	4	PG	N	N	N	N	N	D-R	D-R	D-R	D-R	D	War	m-U-P	Col.	4.9	I-F	I-F	Ros	Bi	Ba
Chrysler	75	30x5.50	Own	6-31x4 1/2	26.8	239	L	75-3200	5.2	Ch.	Al.	4	PG	N	N	N	N	N	D-R	D-R	D-R	D-R	D	War	m-U-P	Col.	4.9	I-F	I-F	Ros	Bi	Ba
Chrysler	85	30x5.50	Own	6-31x4 1/2	26.8	239	L	75-3200	5.2	Ch.	Al.	4	PG	N	N	N	N	N	D-R	D-R	D-R	D-R	D	War	m-U-P	Col.	4.9	I-F	I-F	Ros	Bi	Ba
Chrysler	95	30x5.50	Own	6-31x4 1/2	26.8	239	L	75-3200	5.2	Ch.	Al.	4	PG	N	N	N	N	N	D-R	D-R	D-R	D-R	D	War	m-U-P	Col.	4.9	I-F	I-F	Ros	Bi	Ba
Chrysler	105	30x5.50	Own	6-31x4 1/2	26.8	239	L	75-3200	5.2	Ch.	Al.	4	PG	N	N	N	N	N	D-R	D-R	D-R	D-R	D	War	m-U-P	Col.	4.9	I-F	I-F	Ros	Bi	Ba
Chrysler	115	30x5.50	Own	6-31x4 1/2	26.8	239	L	75-3200	5.2	Ch.	Al.	4	PG	N	N	N	N	N	D-R	D-R	D-R	D-R	D	War	m-U-P	Col.	4.9	I-F	I-F	Ros	Bi	Ba
Chrysler	125	30x5.50	Own	6-31x4 1/2	26.8	239	L	75-3200	5.2	Ch.	Al.	4	PG	N	N	N	N	N	D-R	D-R	D-R	D-R	D	War	m-U-P	Col.	4.9	I-F	I-F	Ros	Bi	Ba
Chrysler	135	30x5.50	Own	6-31x4 1/2	26.8	239	L	75-3200	5.2	Ch.	Al.	4	PG	N	N	N	N	N	D-R	D-R	D-R	D-R	D	War	m-U-P	Col.	4.9	I-F	I-F	Ros	Bi	Ba
Chrysler	145	30x5.50	Own	6-31x4 1/2	26.8	239	L	75-3200	5.2	Ch.	Al.	4	PG	N	N	N	N	N	D-R	D-R	D-R	D-R	D	War	m-U-P	Col.	4.9	I-F	I-F	Ros	Bi	Ba
Cummins	132-142	30x6.00	Con.	6-31x4 1/2	26.8	239	L	112-3400	4.94	He.	Al.	4	PG	N	N	N	N	N	D-R	D-R	D-R	D-R	D	War	m-U-P	Col.	4.9	I-F	I-F	Ros	Bi	Ba
Dodge	65	30x5.50	Own	6-31x4 1/2	26.8	239	L	85-2600	5.0	Ch.	Al.	4	PG	N	N	N	N	N	D-R	D-R	D-R	D-R	D	War	m-U-P	Col.	4.9	I-F	I-F	Ros	Bi	Ba
Dodge	75	30x5.50	Own	6-31x4 1/2	26.8	239	L	85-2600	5.0	Ch.	Al.	4	PG	N	N	N	N	N	D-R	D-R	D-R	D-R	D	War	m-U-P	Col.	4.9	I-F	I-F	Ros	Bi	Ba
Dodge	85	30x5.50	Own	6-31x4 1/2	26.8	239	L	85-2600	5.0	Ch.	Al.	4	PG	N	N	N	N	N	D-R	D-R	D-R	D-R	D	War	m-U-P	Col.	4.9	I-F	I-F	Ros	Bi	Ba
Dodge	95	30x5.50	Own	6-31x4 1/2	26.8	239	L	85-2600	5.0	Ch.	Al.	4	PG	N	N	N	N	N	D-R	D-R	D-R	D-R	D	War	m-U-P	Col.	4.9	I-F	I-F	Ros	Bi	Ba
Dodge	105	30x5.50	Own	6-31x4 1/2	26.8	239	L	85-2600	5.0	Ch.	Al.	4	PG	N	N	N	N	N	D-R	D-R	D-R	D-R	D	War	m-U-P	Col.	4.9	I-F	I-F	Ros	Bi	Ba
Dodge	115	30x5.50	Own	6-31x4 1/2	26.8	239	L	85-2600	5.0	Ch.	Al.	4	PG	N	N	N	N	N	D-R	D-R	D-R	D-R	D	War	m-U-P	Col.	4.9	I-F	I-F	Ros	Bi	Ba
Dodge	125	30x5.50	Own	6-31x4 1/2	26.8	239	L	85-2600	5.0	Ch.	Al.	4	PG	N	N	N	N	N	D-R	D-R	D-R	D-R	D	War	m-U-P	Col.	4.9	I-F	I-F	Ros	Bi	Ba
Dodge	136	30x5.50	Own	6-31x4 1/2	26.8	239	L	85-2600	5.0	Ch.	Al.	4	PG	N	N	N	N	N	D-R	D-R	D-R	D-R	D	War	m-U-P	Col.	4.9	I-F	I-F	Ros	Bi	Ba
Dodge	151	30x5.50	Own	6-31x4 1/2	26.8	239	L	85-2600	5.0	Ch.	Al.	4	PG	N	N	N	N	N	D-R	D-R	D-R	D-R	D	War	m-U-P	Col.	4.9	I-F	I-F	Ros	Bi	Ba
Dodge	161	30x5.50	Own	6-31x4 1/2	26.8	239	L	85-2600	5.0	Ch.	Al.	4	PG	N	N	N	N	N	D-R	D-R	D-R	D-R	D	War	m-U-P	Col.	4.9	I-F	I-F	Ros	Bi	Ba
Dodge	171	30x5.50	Own	6-31x4 1/2	26.8	239	L	85-2600	5.0	Ch.	Al.	4	PG	N	N	N	N	N	D-R	D-R	D-R	D-R	D	War	m-U-P	Col.	4.9	I-F	I-F	Ros	Bi	Ba
Dodge	181	30x5.50	Own	6-31x4 1/2	26.8	239	L	85-2600	5.0	Ch.	Al.	4	PG	N	N	N	N	N	D-R	D-R	D-R	D-R	D	War	m-U-P	Col.	4.9	I-F	I-F	Ros	Bi	Ba
Dodge	191	30x5.50	Own	6-31x4 1/2	26.8	239	L	85-2600	5.0	Ch.	Al.	4	PG	N	N	N	N	N	D-R	D-R	D-R	D-R	D	War	m-U-P	Col.	4.9	I-F	I-F	Ros	Bi	Ba
Dodge	201	30x5.50	Own	6-31x4 1/2	26.8	239	L	85-2600	5.0	Ch.	Al.	4	PG	N	N	N	N	N	D-R	D-R	D-R	D-R	D	War	m-U-P	Col.	4.9	I-F	I-F	Ros	Bi	Ba
Dodge	211	30x5.50	Own	6-31x4 1/2	26.8	239	L	85-2600	5.0	Ch.	Al.	4	PG	N	N	N	N	N	D-R	D-R	D-R	D-R	D	War	m-U-P	Col.	4.9	I-F	I-F	Ros	Bi	Ba
Dodge	221	30x5.50	Own	6-31x4 1/2	26.8	239	L	85-2600	5.0	Ch.	Al.	4	PG	N	N	N	N	N	D-R	D-R	D-R	D-R	D	War	m-U-P	Col.	4.9	I-F	I-F	Ros	Bi	Ba
Dodge	231	30x5.50	Own	6-31x4 1/2	26.8	239	L	85-2600	5.0	Ch.	Al.	4	PG	N	N	N	N	N	D-R	D-R	D-R	D-R	D	War	m-U-P	Col.	4.9	I-F	I-F	Ros	Bi	Ba
Dodge	241	30x5.50	Own	6-31x4 1/2	26.8	239	L	85-2600	5.0	Ch.	Al.	4	PG	N	N	N	N	N	D-R	D-R	D-R	D-R	D	War	m-U-P	Col.	4.9	I-F	I-F	Ros	Bi	Ba
Dodge	251	30x5.50	Own	6-31x4 1/2	26.8	239	L	85-2600	5.0	Ch.	Al.	4	PG	N	N	N	N	N	D-R	D-R	D-R	D-R	D	War	m-U-P	Col.	4.9	I-F	I-F	Ros	Bi	Ba
Dodge	261	30x5.50	Own	6-31x4 1/2	26.8	239	L	85-2600	5.0	Ch.	Al.	4	PG	N	N	N	N	N	D-R	D-R	D-R	D-R	D	War	m-U-P	Col.	4.9	I-F	I-F	Ros	Bi	Ba
Dodge	271	30x5.50	Own	6-31x4 1/2	26.8	239	L	85-2600	5.0	Ch.	Al.	4	PG	N	N	N	N	N	D-R	D-R	D-R	D-R	D	War	m-U-P	Col.	4.9	I-F	I-F	Ros	Bi	Ba
Dodge	281	30x5.50	Own	6-31x4 1/2	26.8	239	L	85-2600	5.0	Ch.	Al.	4	PG	N	N	N	N	N	D-R	D-R	D-R	D-R	D	War	m-U-P	Col.	4.9	I-F	I-F	Ros	Bi	Ba
Dodge	291	30x5.50	Own	6-31x4 1/2	26.8	239	L	85-2600	5.0	Ch.	Al.	4	PG	N	N	N	N	N	D-R	D-R	D-R	D-R	D	War	m-U-P	Col.	4.9	I-F	I-F	Ros	Bi	Ba
Dodge	301	30x5.50	Own																													

# USED CARS

on a  
*healthy profitable basis*



WITH Used Cars as well as New Cars, Cadillac-LaSalle dealers are profiting by the advantageous position they occupy in the trade and are reaping the benefits of the policy under which they operate.

Cadillac-LaSalle sales do not require artificial stimulation by means of over-allowance for trade-ins.

Consequently Used Car inventories do not represent fictitious values, or an unsound proportion of capital.

Used Cars move faster. Liquidation is made easier. Business is healthier. Net profits are greater.

Which accounts, in large measure, for the high regard in which the Cadillac-LaSalle franchise is held.

CADILLAC MOTOR CAR COMPANY

*Division of General Motors*

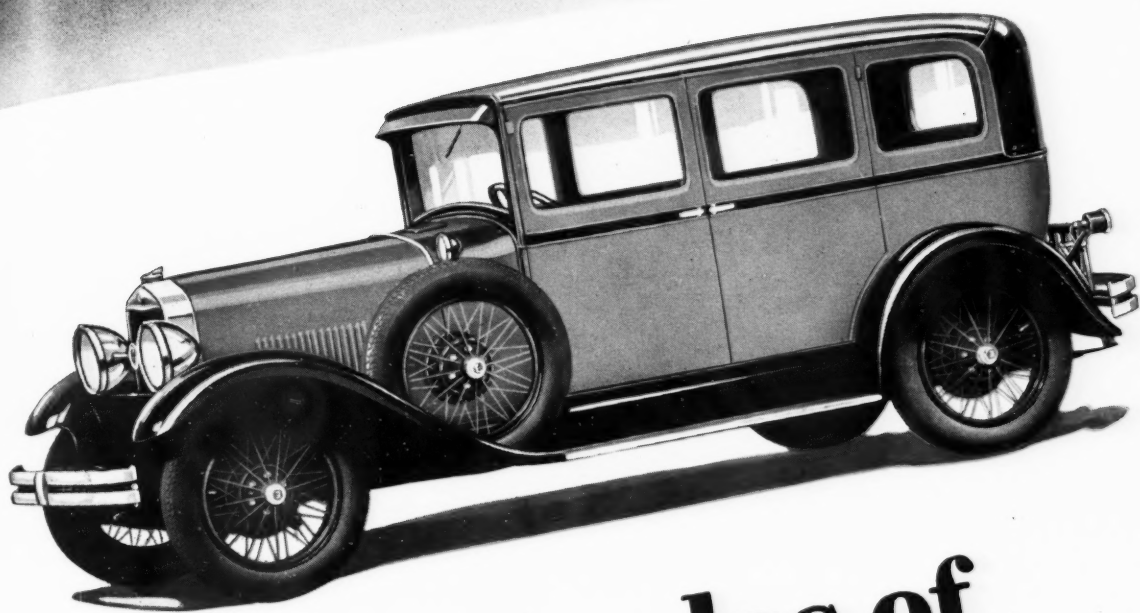
Detroit, Michigan

Oshawa, Canada

# CADILLAC-LA SALLE







**Retail sales of  
Studebaker's  
ERSKINE SIX  
the first half of 1928  
exceeded the total  
sales in 1927! And  
that was before the  
introduction of this  
*new and greater*  
Erskine Six**



# NOW — the new Erskine Six sets a new pace for appearance and performance

**I**T is a car smart and modern in every line . . . longer wheelbase, hydraulic shock absorbers, drive it 40 miles an hour the very first day and smooth 62-mile speed later! Champion of its price class . . . 1,000 miles in 984 minutes! Read what Studebaker-Erskine dealers say about this unequaled value at a price every family can afford . . . \$835 to \$1045.

"Out where the tall corn grows" is Marengo, Iowa, a town of 2,118. Here Hogan Brothers sold 18 Erskine Sixes the first five months of this year. In addition, 39 Studebaker models were delivered.

Down in the Lone Star state of Texas, The Mexia Motor Car Company, Inc., of Mexia, delivered 13 Erskine Sixes from January 1 to June 1, this year. And Mexia has a population of but 8,000.

Twenty-four Erskine Sixes in five months in a city of 7,465 is no mean record. Yet this is the number delivered by The James Motor Company at Rapid City, South Dakota, prior to June this year.

Sixteen Erskines were sold by The Wenatchee Produce Company, Inc., Wenatchee, Washington, before June 1, this year. A substantial number of Studebaker models were sold in addition. Wenatchee is a town of 11,067 inhabitants.

The Rockland Garage Company at Rockland, Maine, a sea coast town which boasts a population of 8,109, sold 15 Erskine Sixes during this same five month period—these in addition to Studebaker sales.

Up in Montevideo, Minnesota, Larson Brothers sold 20 Erskines in this period, and delivered 21 Studebakers in addition. Montevideo has a population of 4,419.

Hickory, North Carolina is a town of few more than 6,000 inhabitants. Yet the Standard Garage and Sales Company located there sold 15 Erskines from January to June this year. With the introduction of the new Erskine Six even a greater volume is anticipated.

The home town of Clarence Chamberlin, transatlantic flyer, is Denison, Iowa, population 3,581. This is also the home of the Denison Auto Company. And here 15 Erskine Sixes were sold from January to June this year.

Taylor A. Faulder, at Sidney, Ohio, population 9,664, sold 32 cars in five months this year—14 of these were Erskines. Even greater sales are expected in view of the reception accorded the new Erskine line.

Twenty-five Erskines were sold by the Gaukel Supply Company at Brookings, South Dakota, the first five months of this year. Brookings is a city of less than 5,000 inhabitants.

At Dawson, New Mexico, inhabitants, 4,890, A. M. Van Dyke sold 13 Erskines during the first five months of 1928. And this was before the introduction of the new and larger Erskine Six.

**STUDEBAKER'S**  
**4 Great Lines of Cars**  
**\$835 to \$2485**  
*f. o. b. Factory*

## New Contract for Towns and Villages

For small communities Studebaker offers an unusually profitable contract. Hardly any capital is necessary. No shop need be operated. No used cars need be handled. No commitments need be made to purchase any particular number of cars. You may confine your selling effort to the opening wedge of the line—The Erskine Six at \$835 f. o. b. factory. Maintaining an Erskine demonstrator entitles you to sell all other Studebaker models—not only Commander, Dictator and President Straight Eight, but a profitable and popular line of commercial cars as well. Mail the coupon TODAY, or write direct to Dept. 51 for information.

THE STUDEBAKER CORPORATION OF AMERICA  
Dept. 51, SOUTH BEND, INDIANA

Please send me full information on the Studebaker-Erskine franchise.

Name \_\_\_\_\_

Street Address \_\_\_\_\_

City and State \_\_\_\_\_

My present business (if selling cars now, state make) \_\_\_\_\_

It's a cinch  
for

**JUMBO**



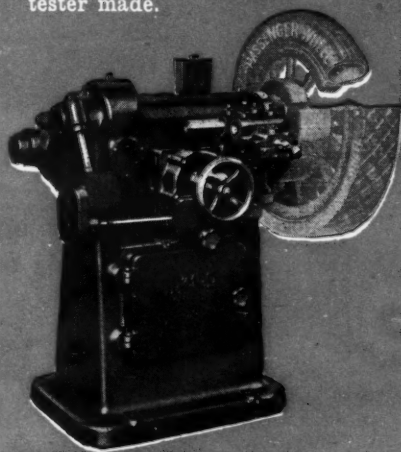
**IT'S** a cinch for Jumbo Equipment to multiply your profits on repair and service work. Every Jumbo machine is specially designed to meet a definite need—a definite market which exists wherever cars or trucks are operated.

Price-Hollister-made equipment means cutting of overhead—doing every job faster, easier and more economically than any other method or machinery can do it. Endorsed the world over for its service-giving, profit-building efficiency.

**THE PRICE-HOLLISTER COMPANY**  
ROCKFORD, ILL.

Export Department: 140 W. 42nd Street, New York City  
Cable Address "JUMBO", all Codes

**JUMBO GIANT BRAKE TESTER**  
Speed—volume—accuracy! Handles up to 50 cars per day. Shows driver the need for brake adjustment, re-lining and drum truing. Automatic. No estimating or figuring. Finest, most profitable tester made.



**JUMBO BRAKE DRUM TURNING AND GRINDING MACHINE**  
Trues inside and outside of brake drums of cars and trucks rapidly and accurately. Fully automatic. Trouble-free. Only universal machine for both turning and grinding. Soon pays for itself.

THE PRICE-HOLLISTER CO., Dept. P-8  
Rockford, Ill. Please send data on

- ☐ Giant Brake Tester
- ☐ Brake Drum Machine
- ☐ Complete catalog of Jumbo Equipment

Name.....

Address.....

Business.....



~and a complete  
program of  
Sales Helps/

**JUMBO EQUIPMENT.**

**MAKES SERVICE PAY...**



**P**

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T H E

# NEW!

*the Beautiful*  
**1 9 2 9**  
*Six" 81*

**Every feature you demand  
in a car!**

7 bearing crankshaft  
Hydraulic four-wheel brakes  
Cam and Lever steering  
Bohnalite pistons  
Vibration dampener  
Lovejoy shock absorbers  
Rubber mountings for the motor  
Radimeter and gasoline gauge on dash  
Electrical clock  
Chromium plated radiator and lamps  
All nickel parts also chromium plated  
Deep pillow upholstery of finest velour  
Indirect lighting on instrument board  
Bumper bracket integral with frame

All these features are in this 1929 Peerless. And yet the car is moderately priced. The Six-81 has clean, vivid beauty that is eloquent of marvelous performance.

Back of the Six-81 stands an old established company — sound as a rock — financially independent — with cash on hand amounting to more than 40% of the listed value of the company's stock . . . offering a dealer franchise that recognizes your right to a substantial profit on every car you sell.

Get in touch with us now, while the impetus back of this new car is just getting under way. It will pay you.

*Closed models \$1595 and up at factory.*

**PEERLESS MOTOR CAR CORP. • Cleveland, Ohio**

**P**  
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E I M

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P L I

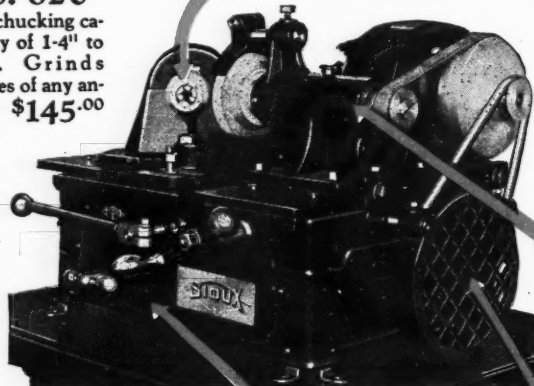
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E S





# VALVE FACE GRINDING MACHINE

**No. 620**  
has chucking capacity of 1-4" to 1-2". Grinds valves of any angle. \$145.00 Net



## Here they Are!

**H**ERE are some of the reasons why you can do the finest and most accurate valve work ... in the quickest possible time ... with the Sioux Valve Face Grinding Machine.

Study the exclusive Sioux features illustrated at the right, and you'll see why the "Sioux" is such an accurate, dependable and fast machine on valve refacing, truing valve stem ends, sharpening reamers and other valve work.

You can make more money on valve work ... with a "Sioux".

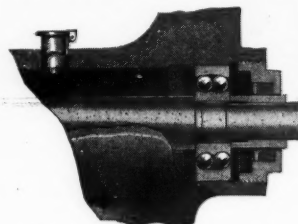
**Investigate the SIOUX  
Before You Buy!**

**Your Jobber Sells It!**

ALBERTSON & CO., Sioux City, Ia., U.S.A.



**Sioux Roller Chucking System** grips stem firmly above worn surface; holds it perfectly centered. Self-aligning, adjustable, positive, accurate. Handles new Ford valves.

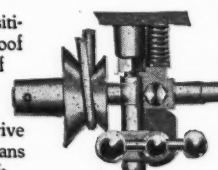


Grinding head bearings kept clean and properly lubricated by oil-filtering felt wicks.

SKF self-aligning ball-bearing assures smooth, positive operation with fewer parts.



Simple, positive, fool-proof method of engaging and disengaging drive shaft by means of a cam lift.



Dependable, positive, automatic lubrication through oil-filtering felt wicks. Keeps out grit and dirt.

*Attractive  
Display*



*Price and  
Profit*

**\$1**

Don't miss this fast-moving automobile Tow Line. The lowest priced insurance against the unexpected emergency. A universal price and a sales-pulling display sign helps you sell Atlantic Tow Lines.

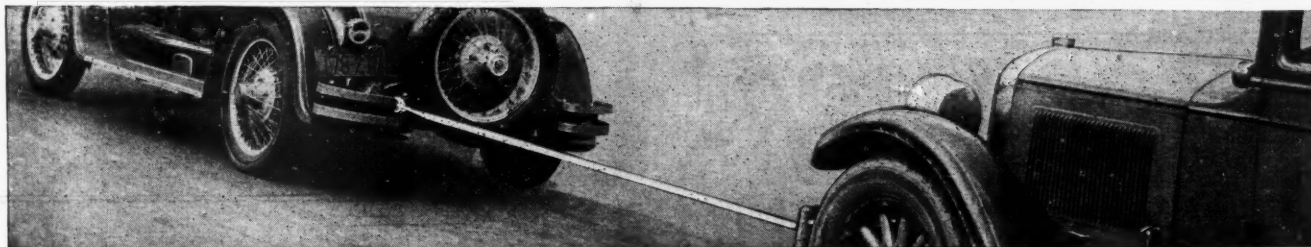
It's a 12-ft. length of strong, pliable, special alloy steel. Strong enough to pull 5 tons. The newest tow line, pocket fitting, compact

—ready for action in the unexpected emergency.

Quick, easy sellers pay volume profit—convince yourself. Buy Atlantics from your Wholesaler—or if he cannot yet supply you, order a dozen as a starter direct.

Atlantic Tow Line Mfg. Co.  
509 Boardwalk, Atlantic City, N. J.

## THE ATLANTIC AUTOMOBILE TOW LINE



## Ideas Build Business and Help Your Profits

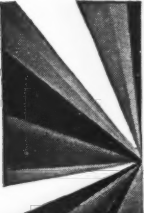
Put new and practical ideas at work in your business and both you and your customers will be benefited.

MOTOR AGE is a dynamo of business-getting ideas for live dealers. Ideas that attract trade, reduce overhead, increase sales and add to your profits.

For your own good, read every issue of MOTOR AGE from cover to cover. Spot the ideas that you can adapt to your own business, put them at work and *cash in!*







With the World to choose from  
they chose  
**HOUDAILLE**  
Hydraulic Double-Acting  
SHOCK ABSORBERS  
for the ride  
HOUDE ENGINEERING CORP., Buffalo, N.Y.

# Weidenhoff

SHOP EQUIPMENT for  
**BATTERY and ELECTRICAL SERVICE**  
Test Benches • Rectifiers • Constant Potential Battery Chargers • Lathes  
Battery Testers • Mica Undercutters • Grinders  
4358 Roosevelt Road Chicago, Illinois



**PISTONS  
FITTED WITH PINS**  
Arrow Head standards are the same for both  
equipment and replacement. The motor's  
reputation in the field must be carefully  
maintained.  
**ARROW HEAD STEEL PRODUCTS COMPANY**  
Buffalo Minneapolis, Minnesota Chicago  
Axle and Drive Shafts

THE **DURANT** LINE  
IS A BRILLIANT SUCCESS  
**DURANT MOTORS, Inc.**  
250 West 57th St., New York, N. Y.  
Factories: Elizabeth, N. J.—Lansing, Mich.—Oakland, Cal.—Toronto, Canada

**ONE PIECE SUITS** YOUR NAME ON  
EACH SUIT  
Protexalls are very inexpensive, yet wear like iron; stocked in  
Khaki, Stripes and other fabrics. Spic and span attendants all  
wearing the same uniform are the  
cheapest form of advertising.  
**PROTEXALL** Protexall Company  
100 North Main Street  
Abingdon, Ill.

# SENTRY

**HORN CONTROL**  
A demonstration sells it. Write for demonstrator equipment offer  
**WILLEY-NOYES MFG. CO. SOMERVILLE, MASS.**

NEW! **MOBILATOR** NEW!  
Automatic Starter Control  
**ELIMINATES AWKWARD REACHING FOR STARTER BUTTON**  
Write for Particulars and Two-Way Profit Plan Today  
**MOBILATOR CORP., 333 N. Michigan Ave., Chicago**

**All Sizes—Electric Drills**  
**FREE . . . 60 Drill Bits**  
Also ten thousand magnetos. All makes—Bosch,  
Eiseman etc., at your own prices. Expansion  
reamers, electric motors and other tools. Write for  
particulars. Nobody but  
**CHAS. STERN & COMPANY**  
317 WASHINGTON BLVD., CHICAGO, ILL.

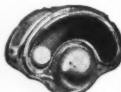
**Majestic Cowl Bands** || Nickel plated—fits all cars.  
**... and Lamps ...** || Prices and discounts upon  
request.  
MANUFACTURED BY  
**METAL STAMPING COMPANY, Inc.**  
LONG ISLAND CITY, N. Y.

**NEW PRICES!**  
A new Dealers Net Exchange Price  
List for Fredericks Lyknu Rewinds is  
now ready. Free, together with The  
Fredericks Armature Application List  
—complete data on every armature  
since 1920. The Fredericks jobber  
displays this sign.  
**H. M. FREDERICKS CO.**  
LOCK HAVEN PENNA.  
**AUTHORIZED ARMATURE  
Rewinds  
—LYKNU—  
by FREDERICKS  
EXCHANGE SERVICE**



**Kigler**  
Better Built Trunks  
**BIGLER MANUFACTURING CO.**  
CHIPPewa FALLS, WIS.

**COWL SADDLE LIGHTS and BANDS**  
In stock for all  
makes of cars  
Easy to install Good discount  
**The ARMSTRONG CO.**  
6340 PENN AVE. E.E. PITTSBURGH, PA.



A waving red light is the universal danger  
signal. Here is a positive warning stop  
light, with positive profits. Write today  
for complete information.  
**The  
ILER ELECTRICAL MFG. CO.**  
5103 Lakeside Avenue, Cleveland, Ohio

**NEXT WEEK**  
—is the time to read next week's issue of **MOTOR  
AGE**, as you are reading this week's issue this week  
**MOTOR AGE**  
Chestnut and 56th Sts. Philadelphia, Pa.

## CLASSIFIED ADVERTISEMENTS AND BUSINESS OPPORTUNITIES

To locate business opportunities  
To sell, rent, exchange or buy  
To find men or employment  
**THE CLASSIFIED DEPARTMENT  
WILL HELP YOU**

**DEALERS WANTED**—Manufacturer of new  
auto accessory with no competition will give  
exclusive territories to the best and most  
aggressive new car dealer, garage owner,  
service station, or live wire accessory store  
in each town. Write for literature and Sales  
Franchise today to Sta-Jax Sales Co., Dept.  
MA, 105 W. Monroe St., Chicago.

**CLASSIFIED ADVERTISEMENTS  
IN "MOTOR AGE" ALWAYS BRING  
RESULTS.**

## INDEX TO THE ADVERTISEMENTS

The Advertisers' Index is published as a convenience, and not as a part of the Advertising contract. Every care will be taken to index correctly. No allowance will be made for errors or failure to insert.

A		L	
Albertson & Co.....	54	Lyon Metal Products, Inc. ....	1
Armstrong Co. ....	56		
Arrow Head Steel Products .....	56		
Atlantic Tow Line Mfg. Co. ....	55		
B		M	
Bigler Mfg. Co. ....	56	Metal Stamping Co., Inc. ....	56
Black Mfg. Co., J. C....	57	Mobilator Corp. ....	56
Budd Wheel Co. ....	2		
Buick Motor Car Co., Back Cover			
C		N	
Cadillac Motor Car Co..	47	Nash Motors Co.....	6
Classified Advertising..	56	New Departure Mfg. Co. ....	7
D		O	
Durant Motors, Inc....	56	Oakite Products, Inc...	3
E		P	
Ethyl Gasoline Corp...	4	Peerless Motor Car Corp. ....	52-53
Evr-Klean Seat Pad Co. ....	3	Plymouth Motor Co....	58
F		Price-Hollister Co....	51
Fredericks Co., H. M...	56	Protexall Co. ....	56
G		S	
Gates Rubber Co. ....	5	Saylor Mfg. Co.....	3
H		Stern & Co., Chas....	56
Houde Engineering Corp. ....	56	Studebaker Corp. of America .....	49-50
I		Stutz Motor Car Corp. of America..	Front Cover
Iler Electrical Mfg. Co..	56		
K		T	
Kingsley-Miller Co.....	57	Tropic-Aire, Inc..	2nd Cover
		U	
		Universal Monogram Co. ....	8
		W	
		Warren Tool & Forge Co. ....	57
		Watson Co., John Warren .....	57
		Weidenhoff, Joseph ...	56
		Willey-Noyes Mfg. Co..	56
		World Bestos Corp.,	3rd Cover

A Bulwark of Protection  A Beacon for the Highway

**BRIGHT BUMPER**

Better to Own THE WARREN TOOL & FORGE COMPANY Better to Sell  
500. GRISWOLD ST. WARREN, OHIO, U. S. A.

## STANDITALL AUTO RADIATOR

You can make more money by replacements than repairs. "Standitall" cores will not burst from boiling or force from freezing. Will outlast the life of the car. Liberal offer for the wide-awake dealer. Investigate now.

J. C. BLACK MFG. COMPANY, INC.  
OIL CITY, PA.

## MONOGRAM Radiator Caps

GEAR SHIFT BALLS, ORNAMENTS

THE KINGSLEY-MILLER COMPANY - CHICAGO

### SHOPS

Displaying this sign are carefully selected

J. WARREN WATSON CO.  
Phila. Pa.

## WATSON STABILATORS

Official Sales and Service

# MOTOR AGE

What the engine is to the automobile—

what the propeller is to the airplane—

what electricity is to the dynamo—

what broadcasting is to radio—

*Motor Age* is to automotive dealers: An indispensable factor in buying, advertising and selling.







The New Way

The Old Way

At the Falls

At Angel Terrace

## See Yellowstone Park

in a more comfortable way today and in  
safety too—each bus is equipped with

**GRAFILD BRAKE LINING**



Send in this coupon for complete information

Name \_\_\_\_\_ Address \_\_\_\_\_  
WORLD BESTOS CORPORATION, 52 Courtland Street, Paterson, N. J.



# 25 YEARS *of* PROGRESS

To Buick Dealers — now enjoying record sales due to the surpassing quality of the Silver Anniversary Buick — the big, outstanding advantage of the Buick franchise is its solidity and security.

For 25 years, the Buick factory and Buick Dealers have won ever-increasing success; and their present position is so sound and strong as to assure even greater prosperity in the future. It pays to be a Buick Dealer. Twenty-five years of progress has proved that to the satisfaction of all.

BUICK MOTOR COMPANY, FLINT, MICHIGAN  
*Division of General Motors Corporation*

*Those who desire the Buick franchise should have their names on file*

*The* **SILVER ANNIVERSARY**  
**BUICK**  
WITH MASTERPIECE BODIES BY FISHER

